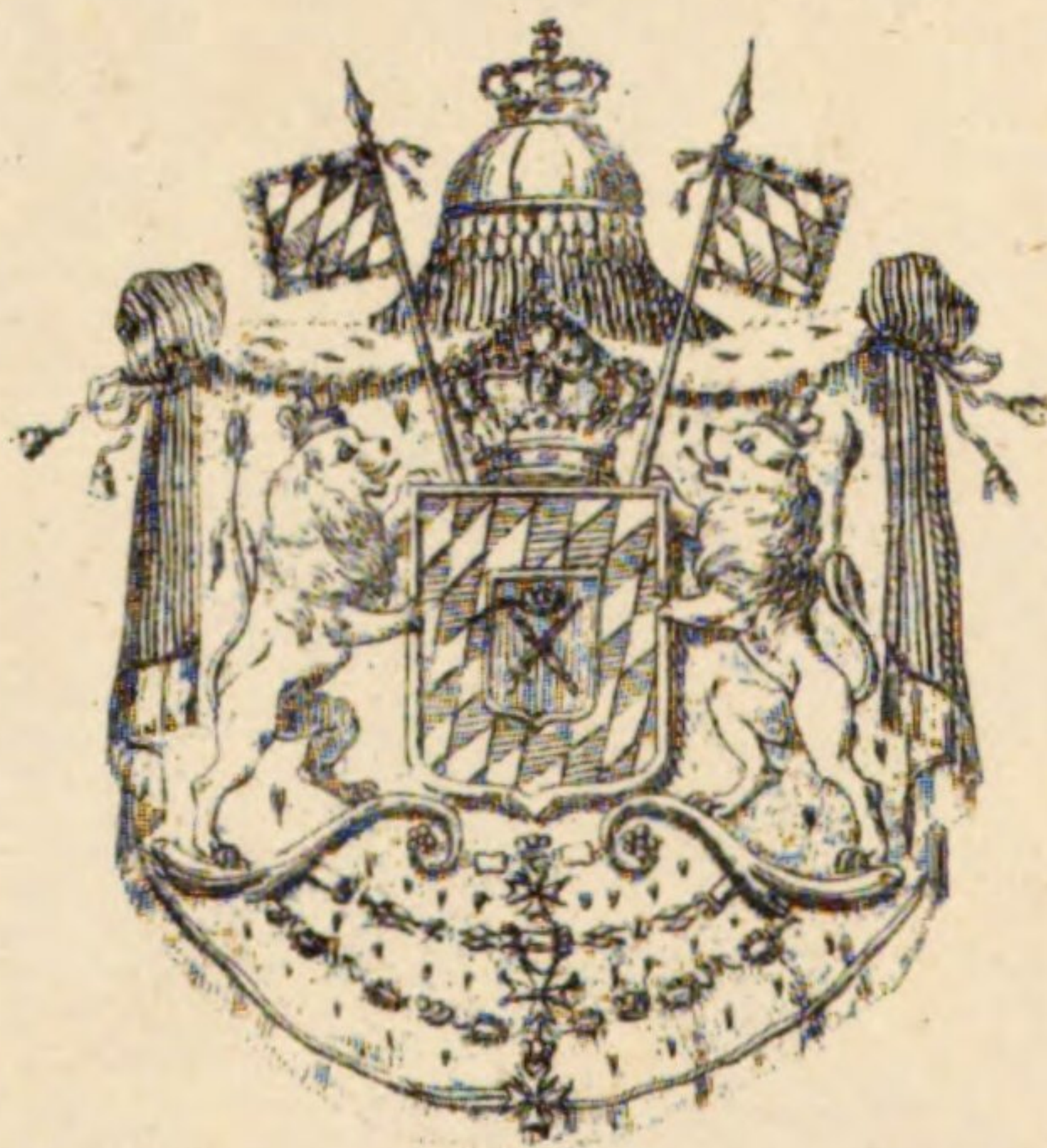




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THE STORY

OF THE

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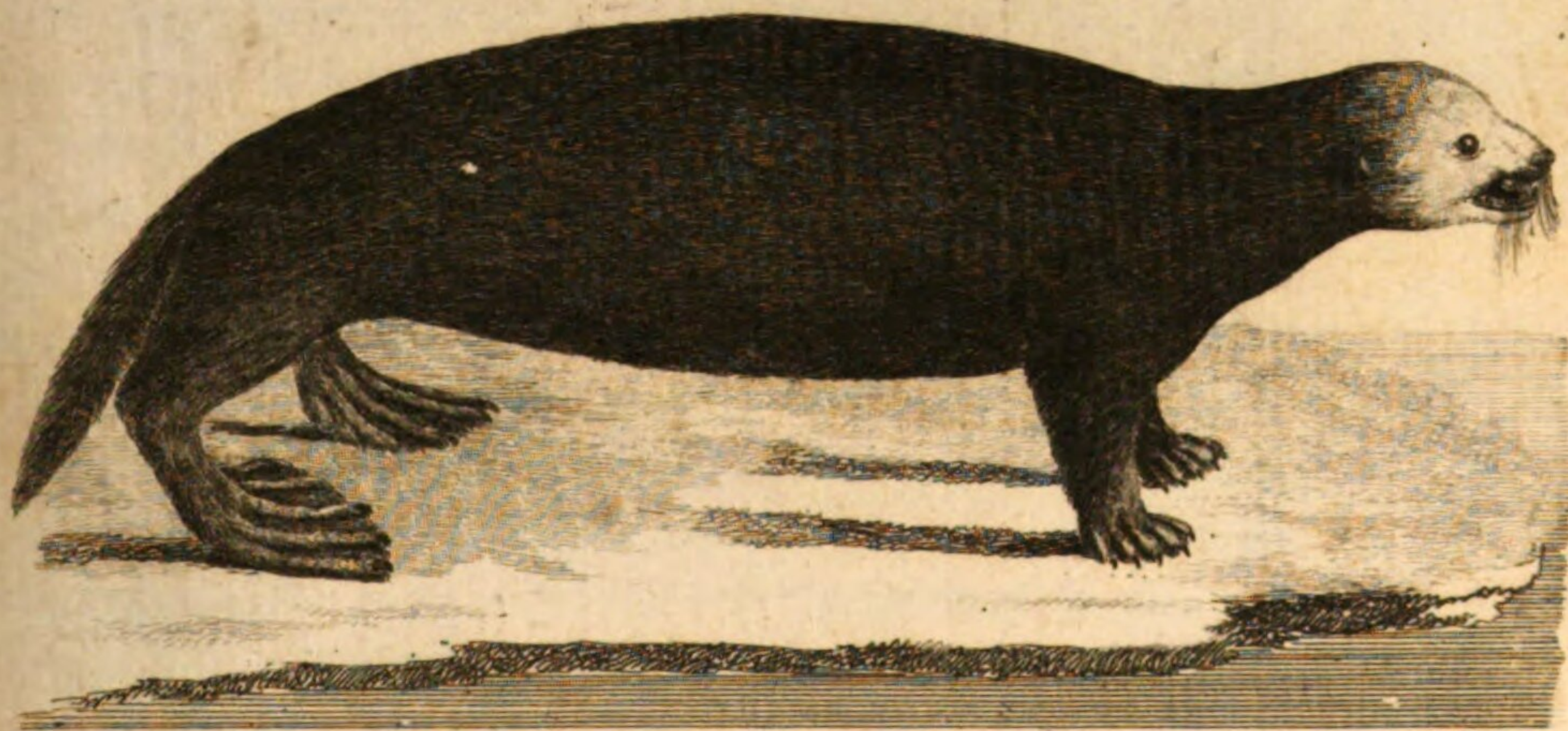
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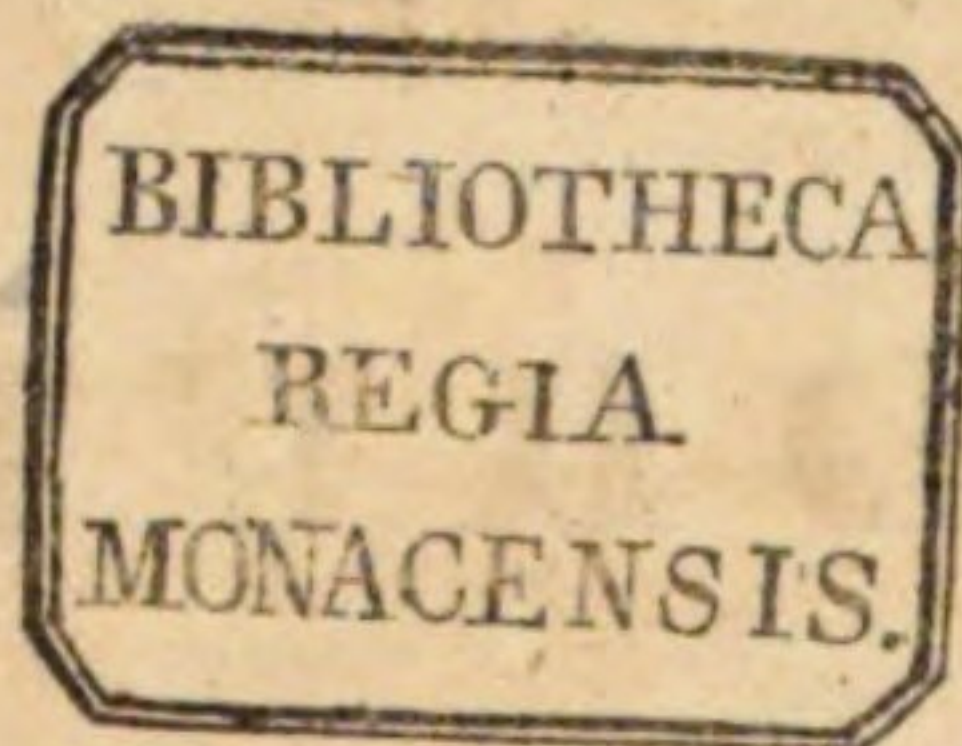
Vol. II.



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MDCCLXXXI.

Page. 285



Six cutting teeth, and two canine, in each jaw.

Five toes before; five behind.

In walking rests on the hind feet, as far as the heel.

XX. BEAR.

Ursus. *Plinii, lib. viii. c. 36.*

Ætæol. Oppian Cyneg. iii. 139.

Ursus. *Gesner quad. 941. Agricola, An.*

Subter. 486. Raii syn. quad. 171.

Niedzwiedz. Rzaczinski Polon. 225.

*Bâr. Klein. quad. 82. Schwenckfelt The-
riotrop. 131. Ridinger Wild. Thiere.
31.*

Ursus niger, cauda concolore. *Briffon
quad. 187.*

Ursus cauda abrupta. *Lin. syst. 69.*

Biorn. Faun. suec. No. 19.

L'Ours. De Buffon, viii. 248. tab. xxxi.

*xxxii. Schreber, cxxxix. cxi. LEV.
Mus.*

174. BLACK.

B. with a long head: small eyes: short ears, rounded at the top: strong, thick, and clumsy limbs: very short tail: large feet: body covered with very long and shaggy hair, various in its color: the largest of a rusty brown; the smallest of a deep black: some from the confines of *Russia* black, mixed with white hairs, called by the *Germans*, *silver bar*; and some (but rarely) are found in *Tartary* of a pure white.

Inhabits the north parts of *Europe*, *Asia*, and *Arabia**; the *Alps* of *Switzerland*, and *Dauphinè*; *Japan*†, and *Ceylon*‡; *N. America*§, and *Peru*§. The brown bears are sometimes carnivorous, and will destroy cattle, and eat carrion; but their general food is roots, fruits, and vegetables: will rob the fields of pease; and when they are ripe, pluck great quantities up; beat the pease

* *Forskal, iv.* † *Kæmpfer, Hist. Japan, i. 126.* ‡ *Knox, Hist. Ceylon. 201.*

§ *Lawson's Carolina, 116. Catesby's Carolina, App. xxv.* § *Condamine's
voy. 82.*

out of the husks on some hard place, eat them, and carry off the straw : they will also, during winter, break into the farmer's yard, and make great havock among his stock of oats : are particularly fond of honey.

AMERICAN.

The black bears of *America* form a very distinct variety. They are much smaller ; their noses long and pointed, and of a yellowish brown color : hair on the body and limbs blacker, more smooth and glossy than that of the *European* kind. The same is also found in *Kamtschatka* : they are very cowardly ; will not attack mankind, unless provoked, or in defence of their young : Those of *Kamtschatka* will bite the natives whom they find asleep, but will not devour them. In both countries confine themselves entirely to vegetables, and are remarkably greedy of *Mayz* and *Potatoes* ; they will even reject animal food, tho' pressed by hunger*.

Bears strike with their fore foot like a cat ; seldom or never use their mouths in fighting ; but seizing the assailant with their paws, and pressing him against their breast, almost instantly squeeze him to death.

The females, after conception, retire into the most secret places ; least, when they bring forth, the males should devour the young : it is affirmed for fact, that out of the several hundred bears that are killed in *America*, during winter, (which is their breeding season) that scarcely a female is found among † them ; so impenetrable is their retreat during their pregnancy : they bring two, rarely three, young at a time : the cubs are deformed, but

* *Du Pratz, Louisiana*, ii. 56, 57.

† Out of 500 bears that were killed in one winter, in two counties of *Virginia*, only two females were found, and those not pregnant. *Lawson*, 117.

not a shapeless mass, to be licked into shape, as the antients pretended *. The cubs even of the brown bears are of a jetty blackness, and often have round their necks a circle of white. The flesh of a bear in autumn, when they are most excessively fat, by feeding on acorns, and other mast, is most delicate food ; and that of the cubs still finer ; but the paws of the old bears are reckoned the most exquisite morsel : the fat white, and very sweet : the oil excellent for strains, and old pains.

The latter end of autumn, after they have fattened themselves to the greatest degree, the bears withdraw to their dens, where they continue for a great number of days in total inactivity, and abstinence from food, having no other nourishment than what they get by sucking their feet, where the fat lodges in great abundance. In *Lapland* they pass the long night in dens lined warmly with a vast bed of moss, in which they roll themselves, secure from the cold of the severe season †. Their retreats are either in cliffs of rocks ; in the deepest recesses of the thickest woods ; or in the hollows of antient trees, which they ascend and descend with surprizing agility : as they lay in no winter provisions, they are in a certain space of time forced from their retreats by hunger, and come out extremely lean : multitudes are killed annually in *America*, for the sake of their flesh, or skins ; which last makes a considerable article of commerce.

* *Hi sunt candida informisque caro, paulo muribus major, sine oculis, sine pilo ; ungues tantum prominent : hanc lambendo paulatim figurant.* Plinii, lib. viii. c. 36.

† *Fl. Lap.* 313. The moss is a variety of the *Polytrichum Commune*.

175. POLAR.

White bear. *Martin's Spitzberg.* 100. *Ursus albus. Martensii. Klein quad.* 82.
Egede Greenl. 59. *Ellis voy.* 41. *L'Ours blanc. Brisson quad.* 188. *De*
Crantz Greenl. i. 73. *Barentz voy.* 18. *Buffon, xv.* 128. *Schreber, cxli. LEV.*
 45. *La Hontan voy.* i. 235. *Catesby Mus.*
Carolina, App. xxvi.

B. with long head and neck: short round ears: end of the nose black: vast teeth: hair long, soft, white, tinged in some parts with yellow: limbs of great size and strength: grows to a vast size: the skins of some are thirteen feet long.

PLACE.

This animal is confined to the coldest part of the globe: it has been found as far as navigators have penetrated northwards, above *lat.* 80. The frigid climates only seem adapted to its nature. It is unknown, except on the shores of *Hudson's Bay, Greenland, and Spitzbergen.* The north of *Norway,* and the country of *Mesen,* in the north of *Russia,* are destitute of them: but they are met with again in great abundance in *Nova Zembla,* and from the river *Ob,* along the *Siberian* coast, to the mouths of the *Jenesei* and *Lena,* but are never seen far inland, unless they lose their way in mists; none are found in *Kamtschatka,* or its islands.

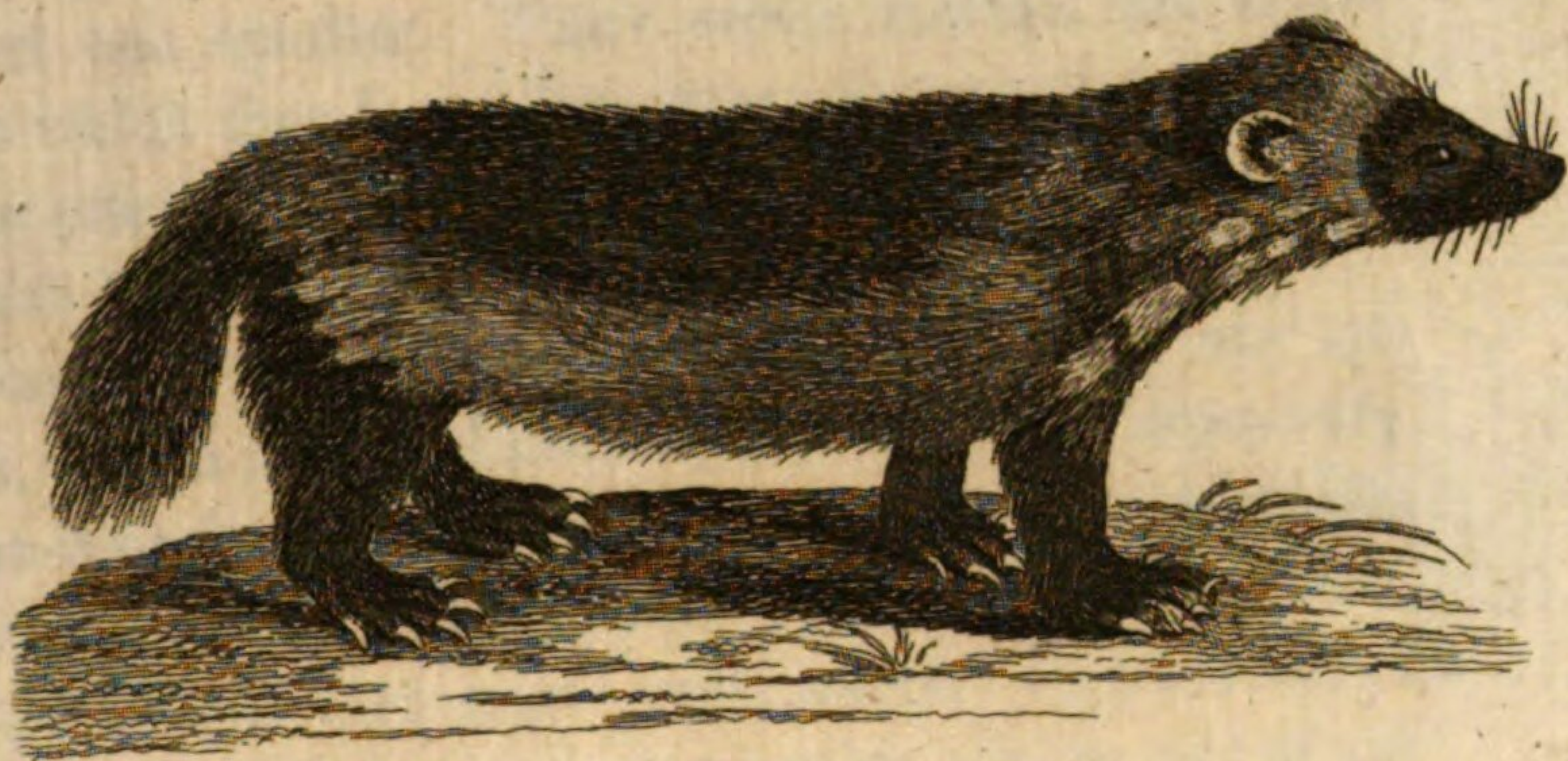
They have been seen as far south as *Newfoundland;* but they are not natives of that country, being only brought there accidentally on the islands of ice.

MANNERS.

During summer the white bears are either resident on islands of ice, or passing from one to another: they swim admirably, and can continue that exercise * six or seven leagues; and dive with great agility. They bring two young at a time: the affection

* *La Hontan, i.*

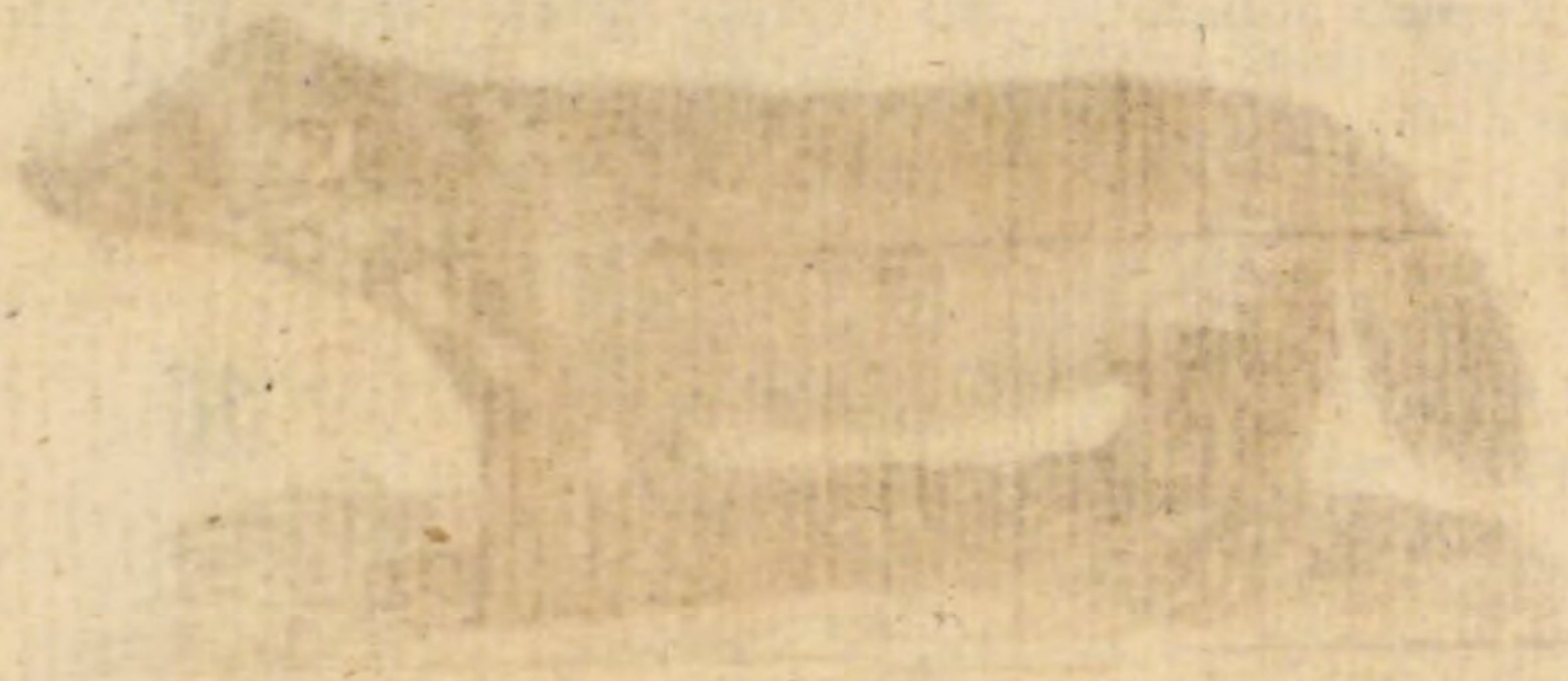
II



I



I POLAR BEAR N^o.175. II WOLVERENE N^o.176



between the parents and them is so strong, that they would die rather than desert one another. Their winter retreats are under the snow *, in which they form deep dens, supported by pillars of the same, or else under some great eminence beneath the fixed ice of the frozen sea.

They feed on fish, seals, and the carcases of whales; and on human bodies, which they will greedily disinter: they seem very fond of human blood; and are so fearless as to attack companies of armed men, and even to board small vessels. When on land, they live on birds, and their eggs; and, allured by the scent of the seals flesh, often break into and plunder the houses of the *Greenlanders*: their greatest enemy in the brute creation is the *Morse* †, with whom they have terrible conflicts, but are generally worsted; the vast teeth of the former giving it a superiority.

The flesh is white, and said to taste like mutton: the fat is melted for train oil, and that of the feet used in medicine; but the liver is very unwholesome, as three of *Barentz's* sailors experienced, who fell dangerously ill on eating some of it boiled.

One of this species was brought over to *England* a few years ago: it was very furious, almost always in motion, roared loud, and seemed very uneasy, except when cooled by having pail-fulls of water poured on it.

Callixenus Rhodius ‡, in his description of the pompous procession of *Ptolemæus Philadelphus* at *Alexandria*, speaks of one great white Bear, Ἀρκτος λευκη μεγάλη μια, among other wild beasts.

* *Egede*, 60, lib. v. p. 201.

† *Egede*, *Greenl.* 60. 83.

‡ As quoted by *Athenæus*,

that graced the shew : notwithstanding the local situation of this species at present, it is possible that *Ptolemy* might procure one ; whether men could penetrate, in those early times, as far as the present residence of these *Arctic* animals, I will not venture to affirm, nor to deny ; but since my friend, the Hon. *Daines Barrington* *, has clearly proved the intense cold that in former ages raged in countries now more than temperate, it is most probable that in those times they were stocked with animals natural to a rigorous climate ; which, since the alteration, have necessarily become extinct in those parts : the *Polar* bear might have been one ; but that it was the species meant by *Callixenus* is clear to me, by the epithet *μεγαλη*, or *great*, which is very applicable to it ; for the white *Tartarian* land bear (which *Ptolemy* might very easily procure) differs not in size from the black or brown kind, but the bulk of the other is quite characteristic.

Land bears, sometimes spotted with white ; at other times wholly white ; are sometimes observed on the parts of *Russia* bordering on *Siberia*, in a wandering state, supposed to have strayed out of the lofty snowy mountains, which divide the two countries †.

* *Phil. Trans* vol. lviii. p. 58.

† Doctor *Pallas*.

Quickhatch. *Catesby Carolina, App.* xxx.
Carcajou, or Quickhatch. *Dobbs Hud-*
son's Bay, 40.

Quickhatch, or Wolverine. *Ellis Hud-*
son's Bay, 42. *Clerk's voy.* ii. 3.
Edw. 103.

Ursus luscus. *U. cauda elongata, cor-*
pore ferrugineo, rostro fusco, fronte

plagaque laterali corporis. Lin. syst. 176. WOLVERENE.
71.

Ursus. Freti Hudsonis. U. castanei co-
loris, cauda unicolore, rostro pedi-
busque fuscis. Brisson quad. 188.
Schreber, cxliv.

Le Glouton. De Buffon, Supplem. iii.
244. *LEV. MUS.*

B. with a black sharp-pointed visage: short rounded ears, al-
most hid in the hair: hairs on the head, back, and belly,
reddish, with black tips, so that those parts appear, on first
sight, quite black: sides of a yellowish brown, which passes in
form of a band quite over the hind part of the back, above the
tail: on the throat a white spot: on the breast a white mark, in
form of a crescent: legs very strong, thick and short, of a deep
black: five toes on each foot *, not deeply divided: on the fore
foot of that I examined were some white spots: the bottom of
the feet covered very thickly with hair: rests, like the bear, on its
foot, as far as the first joint of the leg; and walks with its back
greatly arched: claws strong and sharp, white at their ends: tail
cloathed with long coarse hairs; those at the base reddish, at the
end black; some of the hairs are six inches long: length from nose

* *Mr. Edwards* observed only four toes on the fore feet of the animal he de-
scribes. My description is taken from an entire skin, in very fine preservation,
communicated to me by the late *Mr. Ashton Blackburne*, of *Orford, Lancashire*,
who, with indefatigable industry and great judgment, enriched the cabinets of
his friends with the rarest natural productions of that continent: as this work
has profited so greatly by that gentleman's labors, it would be ungrateful to
omit my acknowledgements.

to tail twenty-eight inches : length of the trunk of the tail seven inches, but the hairs reach six beyond its end : the whole body is covered with very long and thick hair, which varies in color, according to the season.

Inhabits *Hudson's-Bay*, and *Canada*, as far as the straits of *Michilimakinac*.

A most voracious animal : slow of foot, so is obliged to take its prey by surprize : in *America* is called the *Beaver-Eater*, for it watches those animals as they come out of their houses, and sometimes breaks into their habitations, and devours them.

In a wild state is vastly fierce ; a terror to both wolf and bear, which will not prey on it when they find it dead *, perhaps on account of its being so very foetid, smelling like a pole-cat : makes a strong resistance when attacked ; will tear the stock from the gun, and pull the traps it is caught in to pieces : burrows †, and has its den under ground. Mr. *Graham*, long resident in *Hudson's Bay*, has assured me, that it will lurk on a tree, and drop on the deer which pass beneath, and fasten on them till the animals are quite exhausted.

Charlevoix, in *Hist. Nouv. France*, v. 189, gives the name of this animal (*Carcajou*) to our 160th species, the *Puma*, or Brown Panther of *N. America*.

* *Clerk California*, ii. 3.

† *La Hontan's voy.* i. 62.

- Gulo. Olaii magni gent. Septentr. 138. Hyæna. Brisson quad. 169. Ysbrandts 177. GLUTTON.
 Gulo, vielfras. Gesner quad. 554. Klein Ides Trav. Harris's Coll. ii. 923.
 quad. 83. tab. v. Mustela gulo. M. pedibus fuffis, cor-
 Rosomak. Rzaczinski Polon. 218. Bell's pore rufo fusco medio dorfi nigro.
 Travels, i. 235. Lin. syst. 67. Zimmerman. 311.
 Muller's Rufs Samlung. iii. 549, 550. Jarf, Filfrefs. Faun. suec. No. 14.
 Ritchkoff Topogr. Orenb. i. 295. Jæerven. Gunner's Act. Nidros, iii. 143.
 Jerf, Fieldfross. Strom Sondmor. 152. tab. iii.
 Pontop. Norway, ii. 22. Scheffer's Le Glutton. De Buffon, xiii. 278.
 Lapland, 134.

B. with a round head : thick blunt nose : short ears, rounded, except at the tip : limbs large : back strait ; marked the whole length with a tawny line : tail short and very full of hair : the hair in all other parts black, finely damasked or watered like a silk, and very glossy ; but sometimes varies into a browner color. *Klein* attributes to it five toes on each foot : that which *Mr. Zimmerman* describes, had but four, very thickly covered with hair.

The length of one which was brought from *Siberia*, and kept alive at *Dresden*, was a yard and eight inches : the height from the top of the head was nineteen inches. *Mr. Zimmerman* describes another, rather lesser than the former, which was shot near *Helmstedt*, in *Wolfenbuttle*. Its length was three feet three : its height before fifteen inches ; behind, sixteen : the tail six inches.

Inhabits *Lapland*, the northern and eastern parts of *Siberia*, and *Kamtschatka*. *Klein* says, that one had been killed in *Saxony*. Those of *Kamtschatka* differ, and vary to white and yellowish, and their skins are esteemed by the natives before the black : they say, that the heavenly beings wear no other garments. The women

SIZE.

PLACE.

men wear the paws of the white fort in their hair ; and esteem a skin as the most valuable present which their husbands or lovers can make.

They are excessively voracious ; that which was confined at *Dresden* would eat thirteen pounds of flesh in a day, and not be satisfied. The report of their filling themselves so full, as to be obliged to go between two trees to force out part of the food, seems to be fabulous.

Like the Lynx, it lurks on the boughs of trees, and will fall on any animal which passes by, fasten on, and destroy it. Its game is chiefly deer ; and about the *Lena*, horses. Is capable of being made tame.

It differs from the bear by its lean habit ; by not lying inactive in winter ; and by its living entirely on animal food. It is also more bold, voracious, and cunning.

The *Russians* call it *Rosomak* ; the *Kamtschatkans*, *Timmi* ; and the *Koratski*, *Haepi*. An animal, called by the *Greenlanders*, *Amanki*, is said to be found in their country, which is supposed to be the Glutton ; but as *Greenland* is destitute of wood, I suppose their *Amanki*, or *Amarok*, to be a fabulous animal*.

* See *Crantz Hist. Greenland*.

Raccoon *Lawson Carolina*, 121. *Catesby Carolina*, App. xxix.

Mapach, seu animal cuncta prætentante manibus. *Fernandez, Nov. Hisp.* 1. *Nieremberg.* 175.

Vulpi affinis Americana. *Raii syn. quad.* 179. *Sloane Jamaica*, ii. 329.

Coati. *Worm Mus.* 319.

Coati. *Ursus cauda annulatim varie-*

gata. Brisson quad. 189.

Ursus Lotor. U. cauda annulata, fascia per oculos transversali nigra. Lin. syst. 70.

Le Raton. *De Buffon*, viii. 337. *tab.* xliii. *Schreber*, cxliii.

Raccoon. *Kalm's Travels. Forster's Tr.* i. 96. 208. *tab.* 11. *LEV. Mus.*

178. RACCOON.

B. with a sharp-pointed black nose : upper jaw the longer : ears short, and rounded : eyes surrounded with two broad patches of black : from the forehead to the nose a dusky line : face, cheeks, and chin, white : upper part of the body covered with hair, ash-colored at the root, whitish in the middle, and tipped with black : tail very bushy, annulated with black : toes black, and quite divided. Sometimes this animal varies : I have seen one entirely of cream color *.

Inhabits the warm and temperate parts of *America* : found also in the mountains of *Jamaica*, and in the isles of *Maria*, between the S. point of *California* and *Cape Corientes*, in the S. Sea † : an animal easily made tame ; very good-natured and sportive, but as unlucky as a monkey ; almost always in motion ; very inquisitive, examining every thing with its paws ; makes use of them as hands : sits up to eat : is extremely fond of sweet things, and strong liquors, and will get excessively drunk : has all the cunning of a fox : very destructive to poultry ; but will eat all sorts

PLACE.

* *LEV. Mus.*

† *Dampier's voy.* i. 276.

of

of fruits, green corn, &c. : at low water feeds much on oysters; will watch their opening, and with its paw snatch out the fish; sometimes is caught in the shell, and kept there till drowned by the coming in of the tide: fond also of crabs: climbs very nimbly up trees: hunted for its skin; the fur next to that of the beaver, being excellent for making hats.

Six cutting teeth, two canine, in each jaw.

XXI. BADGER.

Five toes before, five behind : very long strait claws on the fore feet.

A transverse orifice between the tail and the anus.

Meles. *Plinii, lib. viii. c. 38. Gesner quad. 327.*

Meles, five Taxus. *Raii syn. quad. 185.*

Meles, Taxus, Tassus, Blerellus ; Jazwiec, Borsuk. *Rzaczkinski Polon. 233.*

Coati cauda brevi, Coati griseus, Taxus, meles, Tax. *Klein quad. 73.*

Dachs. *Kramer Austr. 313.*

Meles pilis ex sordide albo et nigro variegatis vestita, capite tæniis alternatim albis et nigris variegato. *Briffon*

quad. 183.

Le Blaireau, ou Taison. *De Buffon, viii. 104. tab. vii.*

Ursus meles. U. cauda concolore, corpore supra cinereo, subtus nigro, fascia longitudinali per oculos auresque nigra. *Lin. syst. 70.*

Meles unguibus anticis longissimis. *Graf suin. Faun. suec. No. 20. Br. Zool. i. 64. Br. Zool. illustr. tab. lii. Schreber, cxlii. LEV. Mus.*

179. COMMON.

B. with small eyes : short rounded ears : short thick neck : with nose, chin, lower sides of the cheeks, and middle of the forehead, white : ears and eyes inclosed in a pyramidal bed of black : hairs on the body long and rude ; their bottoms a yellowish white, middle black, ends ash-colored : throat, breast, belly, and legs black : tail covered with long hairs, colored like those on the body : legs very short and thick : claws on the fore feet very long : a foetid white matter exudes from the orifice beneath the tail : animal of a very clumsy make.

The length is commonly two feet six inches from the nose to the origin of the tail ; of the tail six inches : the weight from fifteen to thirty-four pounds. The last is rare ; but I met with, in the winter of 1779, a male of that weight.

SIZE.

Q q

Inhabits

Inhabits most parts of *Europe*, as far north as *Norway* *, and *Russia*; and the *step* or desert beyond *Orenburgh*, in the *Russian Asiatic* dominions; in *Great Tartary*, and in *Siberia* about the river *Tom*, and even about the *Lena*, but none in the north; inhabits also *China*, and is often found in the butchers shops in *Pekin*, the *Chinese* being fond of them †. A scarce animal in most countries: seldom appears in the day; confines itself much to its hole: is indolent and sleepy: generally very fat: feeds by night; eats roots, fruits, grass, insects, and frogs: not carnivorous: its flesh makes good bacon: runs slowly; when overtaken comes to bay, and defends itself vigorously: its bite hard and dangerous: burrows under ground, makes several apartments, but forms only one entrance from the surface: hunted during night, for the skin, which serves for pistol furniture; the hair, for making brushes to soften the shades in painting. The division of this species into two, *viz.* the swine and the dog badger, unnecessary, there being only one.

β. AMERICAN.

B. with a white line from the tip of the nose, passing between the ears, to the beginning of the back, bounded on each side, as far as the hind part of the head, with black, then by a white one, and immediately between that and the ears is another of black: hair long: back colored like that of the common badger: sides yellowish: belly cinereous: thighs dusky: tail covered with long dirty yellow hairs, tipped with white; the end dusky.

* *Pontop. hist. Norway*, ii. 28.

† *Bell's travels*, ii. 83.

The legs were wanting in the skin I took my description from. M. de Buffon's description, taken from a stuffed animal * brought from *Terra di Labrador*, will supply that defect: he says there were only four toes on the fore feet; but he suspects (as I imagine was the case) that the fifth might have been rubbed off in stuffing.

Described from a skin from *Hudson's-Bay*, found in a furrier's shop in *London*: it was less than that of the *European* badger: the furrier said, he never met with one before from that country. Kalm † says, he saw the *European* badger in the province of *Pennsylvania*, where it is called the *Ground Hog* ‡; and this proves to be no other, varying very little from it.

B. with a small head, and pointed nose: scarcely any external ears; only a small prominent rim round the orifice, which was oval: color of the nose and face, a little beyond the eyes, black: crown, upper part of the neck, the back, and upper part of the tail, white, inclining to grey: legs, thighs, breast, belly, sides, and under part of the tail, black.

180. INDIAN.

Five toes on each foot; the inner small: claws very long and strait.

Length from nose to tail about two feet: tail four inches: hair short and smooth.

SIZE.

* He calls it *Le Carcajou*. Suppl. iii. 242. tab. xlix.

† Kalm's travels Forster's transl. i. 189.

‡ M. Briffon describes a white Badger, with a yellowish white belly, and also much inferior in size to that of *Europe*, which M. Reaumur received from *New York*. Vide Briffon quad. 185.

PLACE.

Inhabits *India*: feeds on flesh: is playful, lively, and good-natured: sleeps rolled up, with its head between its hind legs; sleeps little in the day: refused all commerce with the *English* badger which was turned to it, and lived some time in the same place: climbs very readily over a division in its cage.

In possession of Mr. *John Hunter*.

Two canine teeth in each jaw.

Cutting teeth unequal in number in each jaw *.

Five toes on each foot : hind feet formed like a hand, with a distinct thumb.

Tail very long, slender, and usually naked.

XXII. OPOS-
SUM.

Tlaquatzin. *Hernandez Mex.* 330. *Ni-remberg*, p. 136. and fig. 136.

Tajibi. *Marcgrave Brasil*, 222. *Raii yn. quad.* 182. 185.

Semi-vulpa. *Gesner quad.* 870. *Icon. An.* 90.

Opossum. *Pb. Tr. abridg.* ii. 884. *tab.* xiii; iii. 593; and v. 169. 177. *Larv-son Carolina*, 120. *Beverley's Virginia*,

135. *Catesby Carolina, App.* xxix. *Rochefort Antilles*, i. 283.

Fara, ou Ravall? *Gumilla Orenoque*, iii. 238.

Le manitou. *Feuille obf. Peru.* iii. 206.

Wood-rat. *Du Pratz Louisiana*, ii. 65.

Didelphis marsupialis. D. mammis octo intra abdomen. ? *Lin. syst.* 71. *A-mæn. Acad.* ? i. 561. *LEV. Mus.*

181. VIRGINIAN.

O. with long sharp-pointed nose : large, round, naked, and very thin ears, black, edged with pure white : small, black, lively eyes : long stiff hairs each side the nose, and behind the eyes : face covered with short soft white hairs : space round the eyes dusky : neck very short ; its sides of a dirty yellow : hind part of the neck and the back covered with hair above two inches long ; soft, but uneven ; the bottoms of a yellowish white, middle part black, ends whitish : sides covered with dirty and dusky hairs ; belly, with soft, woolly, dirty white hair : legs and thighs black : feet dusky : claws white : base of the tail clothed with long hairs, like those on the back ; rest of the tail covered

* This species has eight cutting teeth in each jaw. *Tyson.*

with small scales ; the half next the body black, the rest white : it has a disagreeable appearance, looking like the body of a snake, and has the same prehensile quality as that of some monkeys : body round, and very thick : legs short : on the lower part of the belly of the female is a large pouch, in which the teats are lodged, and where the young shelter as soon as they are born.

SIZE.

The usual length of the animal is, from the tip of the nose to the base of the tail, about twenty inches ; of the tail twelve inches.

PLACE.

Inhabits *Virginia, Louisiana, Mexico, Brasil, and Peru* : is very destructive to poultry, and sucks the blood without eating the flesh : feeds also on roots and wild fruits : is very active in climbing trees : will hang suspended from the branches by its tail, and, by swinging its body, fling itself among the boughs of the neighbouring trees : continues frequently hanging with its head downwards : hunts eagerly after birds and their nests : walks very slow : when pursued and overtaken, will feign itself dead : not easily killed, being as tenacious of life as a cat : when the female is about to bring forth, she makes a thick nest of dry grass in some close bush at the foot of a tree, and brings four, five, or six young at a time.

MANNERS.

FALSE BELLY.

As soon as the young are brought forth, they take shelter in the pouch, or false belly, and fasten so closely to the teats, as not to be separated without difficulty : they are blind, naked, and very small when new-born, and resemble *fætuses* : it is therefore necessary that they should continue there till they attain a perfect shape, strength, sight, and hair ; and are prepared to undergo what may be called a second birth : after which, they run into this pouch as into an asylum, in time of danger ; and the parent carries them about with her. During the time of this second gestation,



OPOSSUM Nº 181

gestation, the female shews an excessive attachment to her young, and will suffer any torture rather than permit this receptacle to be opened; for she has power of opening or closing it by the assistance of some very strong muscles.

The flesh of the old animals is very good, like that of a sucking pig: the hair is dyed by the *Indian* women, and wove into garters and girdles: the skin is very foetid.

M. *de Buffon* seems not to be acquainted with this animal, but has compiled an account of its manners, and collected the synonyms of it. The figures * which he has given belong to the following species, as does the description.

Carigue, ou Saragoy. <i>De Laet</i> . 485.	Philander orientalis fœmina. <i>Seb. Mus.</i>	182. MOLLUCA.
Carigeya. <i>Marcgrave</i> , 223.	i. 61. tab. xxxvi. fig. 1. 2. xxxviii.	
Mus Marsupialis, <i>Beutel ratze</i> . <i>Klein quad.</i> 59.	fig. 1.	
Vulpes major putoria cauda tereti & glabra? <i>Barrere France Æquin.</i> 166.	Sarigue, ou l'Opossum. <i>De Buffon</i> , 311. x. tab. lxv. lxvi. <i>Schreber</i> . cxlvi. A. B. <i>LEV. Mus.</i>	

O with long, oval, and naked ears: mouth very wide: over each eye is an oblong spot of white: lower side of the upper jaw, throat, and belly, of a whitish ash-color: rest of the hair of a cinereous brown, tipped with tawny, darkest on the back: tail long as the body; near the base covered with hair, the rest naked: claws hooked.

On the belly of the female is a pouch, in which the young (like those of the former) shelter. *Marcgrave* found six young within the pouch of the *Carigueya*, which I consider as the same animal. It had ten cutting teeth above, and eight below.

* The figure in my former edition was very indifferent, I have therefore changed it for the very faithful one in the *Phil. Transf.*

Length

SIZE.

Length from nose to tail, ten inches. The tail exceeds the length of head and body. Its whole figure is of a much more slender and elegant make than the former.

The tail pulverised, and taken in a glass of water, is reckoned in *New Spain* a sovereign remedy against the gravel, colic, and several other disorders.

PLACE.

This genus is not confined to *America*, as *M. de Buffon* supposes; who combats the opinion of other naturalists on this subject with much warmth: but the authority of *Piso*, *Valentyn*, and of *Le Brun*, who have seen it both in *Java* and in the *Molucca Isles*, and of numbers of collectors in *Holland*, who receive it frequently from those places. This and N° 183 are proofs of what I advance. It is also met with in *New Holland*.

This species is found in great numbers in *Aroe* and *Solor*: It is called in the *Indies*, *Pelandor Aroe*, or the *Aroe Rabbet*. They are reckoned very delicate eating; and are very common at the tables of the Great, who rear the young in the same places in which they keep their rabbits. It inhabits also *Surinam*, and the hot parts of *America*.

α. GREATER.

Seba figures and describes, in his 1st vol. 64. tab. xxxix. an Opossum under the name of *Philander maximus orientalis femina*. It has a pouch like the former: is much larger: seems to have a longer and more slender tail: has broader ears; has a dusky spot over each eye, and is of a darker color. It feeds on fruits: was brought from *Amboina*, where it is called *Coes Coes* *.

* *In Indiis orientalibus, idque solum, quantum haecenus constat, in Amboina, similis Bestia (Carigueya) frequens ad felis magnitudinem accidens, mactata ab incolis comeditur, si rite preparetur, nam alias fætet, nomen illi Cous Cous inditum. Piso Brasil, 323.*

I am unacquainted with this species, so leave these two conjoined till I receive fuller information.

Much is wanted to complete the natural history of this genus.

Filander. *Le Bruyn voy. East Indies*, ii. 101. tab. ccxiii. Ed. Angl.

183. JAVAN.

O. (according to *Le Bruyn's* figure) with a narrow fox-like head: upright pointed ears: a brown stripe passing through the eyes: fore legs very short: five toes on the fore feet; three only on the hind, two of which are very strong; the outmost slender and weak; and found on dissection to consist internally of two bones, closely united, with two weak claws bursting out of the skin*: tail thick, shorter than the body.

In the upper jaw are six cutting teeth; in the lower two, which are formed like those of squirrels: no canine teeth†.

On the belly is a complete pouch, like the *Virginian* kind: hair on the body rude: face seemingly that of a hare.

Discovered first by Mr. *Le Bruyn*, who saw in *Java* several in an inclosure along with rabbits: they burrowed like them; leaped in their pace; preserved their young in the pouch, which would often peep out when the old ones were still.

PLACE.

The fidelity of *Le Bruyn's* figure has been since confirmed by the specimens sent from *Java* into *Holland*.

* *Pallas* in act. acad. *Petrop. pars* ii. 229. tab. ix*.

† The same.

184. KANGURU.

Kangaroo. *Cook's voy.* iii. 577. *tab.* xx.
Yerboa gigantea. *Zimmerman*, 526.

O. with a small head, neck, and shoulders : body increasing in thickness to the rump.

The head oblong, formed like that of a fawn, and tapering from the eyes to the nose : end of the nose naked and black : upper lip divided.

Nostrils wide and open : lower jaw shorter than the upper : aperture of the mouth small : whiskers on both jaws ; those on the upper longest : strong hairs above and below the eyes.

Eyes not large ; irides dusky ; pupil of a blueish black.

Ears erect, oblongly ovated, rounded at the ends, and thin, covered with short hairs ; four inches long.

TEETH.

No canine teeth : four broad cutting teeth in the upper jaw : two long lanceolated teeth in the lower, pointing forward : four grinding teeth in each jaw, remote from the others.

Belly convex and great.

LEGS.

Fore legs very short, scarcely reaching to the nose ; useless for walking.

Hind legs almost as long as the body : the thighs very thick : on the fore feet are five toes, with long conic and strong claws ; on the hind feet only three : the middle toe very long and thick, like that of an ostrich ; the two others placed very distinct from it, and are small : the claws short, thick, and blunt : the bottom of the feet, and hind part, black, naked, and tuberculated, as the animal rests often on them.

TAIL.

Tail very long, extending as far as the ears ; thick at the base, tapering to a point.



Kanguru. N^o 184



Scrotum large and pendulous.

Hair on the whole animal soft, and of an ash-color; lightest on the lower parts.

Length of the largest skin I examined, three feet three inches from the nose to the tail: of the tail, two feet nine.

SIZE.

Weight of the largest which was shot, was eighty-four pounds; but this, on examination of the grinding teeth, had not attained its full growth*.

Inhabits the western side of *New Holland*, and has as yet been discovered in no other part of the world. It lurks among the grass: feeds on vegetables: goes entirely on its hind legs, making use of the fore feet only for digging, or bringing its food to its mouth. The dung is like that of a deer. It is very timid: at the sight of men flies from them by amazing leaps, springing over bushes seven or eight feet high; and going progressively from rock to rock. It carries its tail quite at right angles with its body when it is in motion; and when it alights often looks back: is much too swift for grey-hounds: is very good eating.

PLACE.

It is called by the natives, *Kanguru*.

NAME.

This is a very anomalous animal: but has more relation to this genus than any other; and in form of its legs comes very near to the preceding species.

* *Cook's voy.* iii. 586.

185. MURINE.

Mus sylvestris Americanus Scalopes dictus. Seb. Mus. i. 46. tab. xxxi. fig. 1. 2.

Philander saturate spadiceus in dorso, in ventre dilutè flavus, pedibus albi-

cantibus. Briffon quad. 211.

Didelphis murina. D. cauda semipilosa, mammis senis. Lin. syst. 72.

La Marmose. De Buffon, x. 336. tab. lii. liii. Schreber, cxlix.

O. with long broad ears, rounded at the end, thin and naked: eyes encompassed with black: face, head, and upper part of the body, of a tawny color: the belly yellowish white: the feet covered with short whitish hair: toes formed like those of the *Virginian*: tail slender, covered with minute scales to the very rump: length, from nose to tail, about six inches and a half; tail of the same length: the female wants the false belly of the former; but, on the lower part, the skin forms on each side a fold, between which the teats are lodged.

This species varies in color: I have seen one from *Guiana*, brown above, white beneath.

Inhabits the hot parts of *South America*: agrees with the others in its food, manners, and the prehensile powers of its tail: it brings from ten to fourteen young at a time; at least, in some species, there are that number of teats: the young affix themselves to the teats as soon as they are born, and remain attached, like so many inanimate things, 'till they attain growth and vigor to shift a little for themselves.

Cayopollin. *Fernandez Nov. Hisp.* 10.

Animal caudimanum. *Nieremberg*, 158.

Mus *Africanus* Kayopollin dictus, mas.

Seb. Mus. tab. xxxi. fig. 3.

Philander saturatè spadiceus in dorso,

in ventre ex albo flavicans, cauda ex

saturatè spadiceo maculata. *Briffon*

quad. 212. Schreber, cxlviii.

Le Cayopollin. *De Buffon, x. 350.*

tab. lv. LEV. MUS.

186. MEXICAN.

O. with large, angular, naked, and transparent ears: nose thicker than that of the former kind: whiskers very large: a slight border of black furrounds the eyes: face of a dirty white, with a dark line running down the middle: the hairs on the head, and upper part of the body, ash-colored at the roots; of a deep tawny brown at the tips: legs dusky: claws white: belly dull cinereous: tail long, and pretty thick, varied with brown and yellow; is hairy near an inch from its origin; the rest naked: length, from nose to tail, about nine inches; the tail the length of the body and head.

Inhabits the mountains of *Mexico*: lives in trees, where it brings forth its young: when in any fright, they embrace their parent closely: the tail is prehensile, and serves instead of a hand.

Le Crabier. *De Buffon, Supplem. iii. 272.*

Canis ferus major, *Cancrofus* vulgo dictus. *Koupara. Barrere France Æquinoct. 149.*

187. CAYENNE.

O. with a long slender face: ears erect, pointed, and short: the coat woolly, mixed with very coarse hairs, three inches long, of a dirty white from the roots to the middle; from thence to the ends of a deep brown: sides and belly of a pale yellow: legs of a dusky brown: thumb on each foot distinct: on the toes
of

of the fore feet, and thumb of the hind, are nails; on the toes of the hind feet crooked claws: tail very long, taper, naked, and scaly.

Length seventeen *French* inches: of the tail fifteen and a half. The subject measured was young.

Inhabits *Cayenne*: very active in climbing trees, on which it lives the whole day. In marshy places, feeds on crabs, which, when it cannot draw out of their holes with its feet, hooks them by means of its long tail. If the crab pinches its tail, the animal sets up a loud cry, which may be heard afar: its common voice is a grunt, like a young pig. It is well furnished with teeth, and will defend itself stoutly against dogs: brings forth four or five young, which it secures in some hollow tree. The natives eat these animals, and say their flesh resembles a hare. They are easily tamed, and will then refuse no kind of food.

188. NEW HOLLAND.

O. with the upper part of the head, and the back and sides, covered with long, soft, glossy hairs, of a dark cinereous color at the bottoms, and of a rusty brown towards the ends: belly of a dirty white.

Tail taper, covered with short brown hairs, except for four inches and a half of the end, which was white, and naked underneath: toes like the former.

The skin I examined had lost part of the face: the length from the head to the tail was thirteen inches: the tail the same.

This was found near *Endeavour* river, on the eastern coast of
New

New Holland, with two young ones *. It lodges in the grass, but is not common.

Mus sylvestris Americana, foemina. *Seb.*

Mus. i. 50. *tab.* xxxi.

Philander obscure rufus in dorso, in

ventre helvus, cauda brevi & crassa.

Briffon quad. 213. *Schreber*, cli.

189. SHORT-
TAILED.

O. with naked ears: the back of a dull red; belly of a paler: tail scarce half the length of the body; thick at the base, lessening towards the end: no false belly.

Inhabits *South America*: the young adhere to the teats as soon as born. *Seba* says it lives in woods, and brings from nine to twelve young at a time.

Philander ex rufo luteus in dorso, in

ventre ex flavo albicans, capite crasso.

Briffon quad. 213. *Seb. Mus.* i. 50.

tab. xxxi. *fig.* 8. *Klein quad.* 58.

Le *Phalanger*. *De Buffon*, xiii. 92.

tab. x. xi. *Schreber*, clii.

190. PHALANGER.

O. with a thick nose: short ears, covered with hair: eight cutting teeth in the upper jaw; two in the lower: hair on the upper part of the body reddish, mixed with light ash-color, and yellow: the hind part of the head, and middle of the back, marked with a black line: the throat, belly, legs, and part of the tail, of a dirty yellowish white; the rest of the tail brown and yellow: the body of the female marked with white: the first and second toes of the hind feet closely united: the claws large: the

* *Cook's voy.* iii. 586.

thumb

thumb on the hind feet distinct, like that of the other species: the bottom of the tail is covered with hair, for near two inches and a half; the rest naked: the length, from nose to tail, near nine inches; the tail ten.

PLACE.

This species inhabits the *East Indian* islands, as I am informed by Doctor *Pallas*; nor is it found in *Surinam*, as M. *de Buffon* conjectures.

191. MERIAN *.

De zak, of Beurs Rot. *Merian insect.* *Surinam*, 66. tab. lxvi.

Mus sylvestris Americana. *Seb. Mus.* i. 49. tab. xxxi. fig. 5.

Philander ex rufo helvus in dorso, in ventre ex flavo albicans. *Briffon quad.* 212.

Mus sylvestris Americanus, catulos in dorso gerens. *Klein quad.* 58.

Didelphis dorfigera. D. cauda basi pilosa corpore longiore, digitis manuum muticis. *Lin. syst.* 72.

Le Philandre de *Surinam.* *De Buffon*, xv. 157. *Mus. LEV.*

with long, sharp-pointed, naked ears: head, and upper part of the body, of a yellowish brown color: the belly white, tinged with yellow: the fore feet divided into five fingers; the hind into four, and a thumb, each furnished with flat nails: tail very long, slender, and, except at the base, quite naked.

SIZE.

The length, from nose to tail, is ten inches. The tail exceeds the length of the body and head.

Inhabits *Surinam*: burrows under ground: brings five or six young at a time, which follow their parent: on any apprehension of danger, they all jump on her back, and twisting their tails round her's, she immediately runs with them into her hole.

* From *Merian*, a German paintress, who first discovered the species at *Surinam*.

Six cutting teeth, two canine teeth, in each jaw.

Sharp nose : slender bodies.

Five toes before ; five behind.

XXIII. WEESEL.

Mustela. Agricola An. Subter. 485. *Gef-ner quad.* 752.

Weasel or Weefel, *mustela vulgaris* ; in *Yorkshire*, the Fitchet, or Foutmart. *Raii syn. quad.* 195.

The Whitred. *Sib. Scot.* iii. 11.

Wiesel. *Klein quad.* 62.

Mustela nivalis. Lin. syst. 69.

Snö-mus. Faun Suec. N° 18.

Mustela supra rutila, infra alba. Brisson quad. 173.

La Belette. *De Buffon*, vii. 225. *tab.* xxix.

Weefel. *Br. Zool.* i. 82. *Br. Zool. illustr. tab. ci. Schreber.* cxxxviii.

LEV. Mus.

192. COMMON.

W with small rounded ears : whole upper part of the head and body of a pale tawny brown ; under side entirely white : a brown spot beneath the corners of the mouth : length, from nose to tail, between six and seven inches : tail two and a half.

Inhabits most parts of *Europe* ; is common in *Siberia*, as far as *Kamtschatka* ; is met with in *N. America*, even as high as *Hudson's Bay* ; found also in *Barbary* *. Is very destructive to chickens, birds, and young rabbits ; a great devourer of eggs : does not eat its prey on the spot ; but after killing it, by a bite near the head, carries it off to its retreat : is a great destroyer of field mice ; a gentleman informed me he found eighty-five, newly killed, in one hole, which he believed belonged to this animal :

* *Shaw's Travels*, 249.

very active, runs up the sides of walls with great ease ; no place is secure from its ravages : frequents outhouses, barns, and granaries : is a great enemy to rats and mice, and soon clears its haunts from those pernicious animals : brings four or five young at a time : its skin and excrements intolerably foetid. In *Norway*, *Sweden*, *Russia*, and *Siberia*, it always changes to white at approach of winter. In *Siberia* it is called *Lasmitska* : their skins are sold to the *Chinese* for three or four rubles the hundred.

193. STOAT.

Mustela. *Gesner quad.* 753.
Wiesel. Kramer Austr. 312. *Meyer's An.*
 ii. tab. 23, 24.
Mustela erminea. *M. plantis fissis*,
 caudæ apice albo. *Lin. syst.* 68.
Wesla. Faun. suec. No. 17.

β. *ERMINE*, when white. *Mus Ponticus*. *Plinii, lib. viii. c. 37. Agricola An. Subter.* 484.
Armelinus, Hermelein. Gesner quad. 754.
Gornostay. Rzaczinski Polon. 235.
Mustela candida, animal ermineum.

Mustela hyeme alba, æstate supra rutila infra alba, caudæ apice nigro. *Briffon quad.* 176.
Le Roselet. De Buffon, vii. 240. tab. xxix. Schreber, cxxxvii. A.
Stoat. Br. Zool. i. 84. Lev. Mus.

Raii syn. quad. 198.
L'Hermine. De Buffon, vii. 240. tab. xxix. fig. 2. Briffon quad. 176. *Schreber, cxxxvii. B.*
Ermine. Hist. Kamtschatka, 99. Pontop. Norway, ii. 25. Br. Zool. i. 84. Lev. Mus.

W. with the upper part of the body pale tawny brown : edges of the ears, and ends of the toes, of a yellowish white : throat, breast, and belly, white : end of the tail black : length, from nose to tail, ten inches ; tail five and a half : in the N. of *Europe* and *Asia*, and in the Highlands of *Scotland*, it becomes entirely white at the approach of winter, the end of the tail excepted : resumes its brown color in the spring : sometimes found white in *England* : one was brought to me in a former

former winter, mottled with brown and white, the season not having been severe enough to effect a total change *; but in February 1780, I saw in my grounds two others in the state of most perfect and beautiful *ermine*s. In the mountains of Southern *Asia* and *Persia*, it retains its brown color the whole year †.

Inhabits, in great abundance, the N. of *Europe*, and of *Asia*; in *Kamtschatka* and the *Kurile* Islands: is met with in *Newfoundland* and *Canada* ‡: the skins a great article of commerce in *Norway* and *Siberia*: is found in the last place in plenty, in birch forests, but none in those of fir or pine: the skins are sold on the spot, from two to three pounds *sterling* per hundred ||: taken in *Norway* in traps, baited with flesh; in *Siberia* §, either shot with blunt arrows, or taken in a trap made of two flat stones, propped by a stick, to which is fastened a baited string, which, on the least touch of the animal, falls down and kills it: its manners and food the same with the former; but does not frequent houses: its haunts are woods and hedges, especially such as border on some brook.

La Fouine de le Guiane. *De Buffon*, Suppl. iii. 161. tab. xxiii.

194. S. AMERICAN
FITCHET.

W with a long sharp nose: that, the cheeks, throat, and sides of the neck, black: forehead and sides of the head, to the ears, white: ears short, round, and edged with white:

* *Br. Zool. illustr. tab. ci.*

† *Pallas.*

‡ *Charlevoix hist. Nouv.*

France, v. 197.

|| *Muller Ruff. Samlung.* 516.

§ *Bell's travels*, i. 199.

Pontop. Norway, ii. 25.

from each ear, a narrow white stripe extends along the sides of the neck : the body covered with coarse hairs, grey at their bases, black and white at the ends : legs and feet black, tinged with red : the toes not unlike those of a rat.

SIZE.

Length from nose to tail near twenty-one inches and a half : tail full of hair, of a bright chesnut, mixed with white ; is rather shorter in proportion than that of the *English Fitchet*, to which it has a great resemblance.

PLACE.

Inhabits *Guiana*.

195. FITCHET.

Putorius. *Gesner quad.* 767.

Yltis. *Agricola An. Subter.* 485.

Pole-cat, or Fitchet. *Raii syn. quad.* 196.

Tchorz. *Rzacinski Polon.* 236.

Mustela foetida. *Iltis. Teuffels kind.*

Klein. quad. 63.

Mustela putorius. *M. pedibus fissis,*

corpore flavo nigricante ; ore auri-

culisque albis. *Lin. syst.* 67. *Hler.*

Faun. suec. No. 16.

Mustela pilis in exortu ex cinereo albidis, colore nigricante terminatis, oris circumferentia alba. *Briffon quad.* 186.

Le Putois. *De Buffon*, vii. 199. *tab.* xxiii. *Schreber*, cxxxi.

Pole-cat. *Br. Zool.* i. 77. *Mus. Lev.*

W with the space round the mouth white ; the tips of the ears of the same color : head, body, and legs, of a chocolate-color, almost black : on the sides the hairs are of a tawny cast : tail black : length seventeen inches ; tail six.

Inhabits most parts of *Europe* ; is common in the temperate parts of *Russia*, but grows scarcer in *Siberia*, except in the desert of *Baraba*, and beyond the lake *Baikal*. None are found north of those places : they are usually met with, in the places just cited, with white or yellowish rumps, bounded with black.

The Fitchet burrows under ground, forming a shallow retreat, about

about two yards in length, generally terminating under the roots of some large tree; sometimes forms its lodge under hayricks, and in barns: brings five or six young at a time: preys on poultry, game, and rabbits: in winter frequents houses, and will rob the dairy of the milk. This animal is excessively foetid; yet the skin is dressed with the hair on, and used as other furs, for tippets, &c.; and is also sent abroad to line cloaths.

Mustela farmatica, *Ruffis* *Perugusna*.

Pallas, *Itin.* i. 453. *Gueldenstaedt*, in

Nov. Com. Petrop. xiv. 441. *tab.* x.

Zimmerman, 486. *Schreber*, cxxxii.

Przewiaska, or the girdled weefel?

Rzacinski, *auct. hist. Polon.* 328.

196. *SARMATIAN*.

W. with broad, short, round ears, edged with long white hairs: mouth surrounded with white: head, feet, and under side of the body, of a full black: head crossed beyond each eye with a white band, passing beneath the ears along the sides of the neck, and down to the throat: from the hind part of the head, another of yellow passes on each side obliquely towards the shoulders; above, is a third: the upper part of the body is of a brownish black, striped and spotted irregularly with obscure yellow: tail dusky, full of hairs, intermixed with white ones longer than the rest: the end wholly black.

Length, from the tip of the nose, about fourteen inches; of the tail six.

Inhabits only *Poland*, and the southern provinces of *Russia*, between the *Dneper* and *Volga*; and in *Asia*, the *Caucasean* mountains, and *Georgia*; and by report, *Bucharia*.

It is a most voracious animal, feeding on the marmots, mice, and

SIZE.

PLACE.

MANNERS.

and other lesser animals that inhabit with it the vast plains of the *Russian* empire. Seizes on its prey, and first sucks out the blood ; does not meddle with eggs : lives usually in holes made by other beasts, but is not without the power of burrowing : preys by night : sleeps little : very fierce and untameable : its eyes flaming : its smell foetid, especially when it erects its tail, which it does in anger : is very active : it moves by frequent jumps : copulates in the spring : goes two months, and brings four or eight young, according to the report of the natives.

197. SIBIRIAN,

Mustela Sibirica, Kolonnok *Ruffis*. *Pallas Itin.* 701.

W with the face black, whitish about the nostrils, and spotted towards the eyes ; the rest of the animal of a deep yellow, nearly approaching to fox or orange color ; with the throat sometimes spotted with white : tail very full of hair, and of a deeper color than the body : hair in general loose and long : the soles of the feet thickly covered with fur.

SIZE.

Its body more slender than the Fitchet, coming nearer to the form of the Stoat : length to the tail twelve inches ; of the tail fix.

PLACE.

Begins to appear in the *Altaic* mountains, between the *Ob* and the *Irtish*, from whence it is common, in wooded mountains, to the *Amur* and lake *Baikal*. It has great resemblance in its manners, haunts, and food with the *fable* ; but does not extend so far north.

Viverra.

Viverra. *Plinii, lib. viii. c. 55. Agricola An. Subter. 486.*

Mustela rustica, viverra, Furo, Ictis. *Gesner quad. 762. Raii syn. quad. 198.*

Fret. *Klein. quad. 63. Schreber, cxxxiii.*

Viverra pilis subflavis, longioribus, castaneo colore terminatis (masc.) M. pilis ex albo subflavis vestita. (fœm.) *Briffon quad. 177.*

Mustela Furo. M. pedibus fissis, oculis rubicundis. *Lin. syst. 68. Mus. LEV.*

198. FERRET.

W. with a very sharp nose : red and fiery eyes : round ears : color of the whole body a very pale yellow : length about fourteen inches ; tail five.

Inhabits, in its wild state, *Africa* * ; from whence it was originally brought into *Spain* †, in order to free that country from the multitudes of rabbits, with which the kingdom was overrun ; from thence the rest of *Europe* was supplied with it : is a lively active animal : the natural enemy of rabbits : sucks the blood of its prey, seldom tears it : breeds in our climate : and brings five, six, or nine at a time : but is apt to degenerate, and lose its savage nature : warreners ‡ are therefore obliged to procure an intercourse between the female and a pole-cat, by leaving it near the haunts of the last : the produce is a breed of a much darker color than the ferret, partaking more of that of the pole-cat. The ferret has the same disagreeable smell with that animal.

* *Shaw's travels, 249.*

† *Καὶ γαλας ἀγρίας ἃς ἡ λυβυη φέρει. Strabo, lib. iii.*

‡ *Br. Zool. i. 78. ii. 498.*

199. MARTIN.

*Martes gutture albo. Agricola An. Sub-
ter. 485. Gesner quad. 764.*

Stein-marter. Klein quad. 64.

*Martes, alias Foyna, Martin, or Mart-
let. Raii syn. quad. 200.*

Kuna. Rzaczinski Polon. 222.

*Mustela pilis in exortu albidis castaneo
colore terminatis vestita, gutture al-*

bo. Briffon quad. 178.

*Mustela martes. M. pedibus fissis, cor-
pore fulvo nigricante, gula pallida.
Lin. syst. 67. Mard. Faun. suec. No.
15.*

*La Fouine. De Buffon, vii. 186. tab.
xviii. Schreber, cxxix.*

Martin. Br. Zool. i. 79. LEV. Mus.

W with broad rounded ears : lively eyes : head brown,
• with a tinge of red : body, sides, and legs covered
with hair, ash-colored at the bottoms, bright chefnut in the
middle, black at the tips : throat and breast white : belly deep
brown : tail full of hair, and of a dusky color : feet broad, co-
vered at bottom with thick down : claws white : length eighteen
inches : tail ten.

PLACE.

Inhabits most parts of *Europe*, even to the warmer parts of
Russia, but does not extend far east in that empire : is a most
elegant lively animal : capable of being tamed : is very good-
natured, and sportive : lives in woods ; and breeds in the hollow
of trees ; and often, during winter, shelters in magpies nests :
brings from four to six young at a time : destroys poultry,
game, &c. and will eat rats, mice, and moles : the skin and ex-
crements have a musky smell : the fur is of some value, and used
to line the robes of magistrates.

Martes

Martes gutture luteo. Agricola An. Subter. 485.

Martes sylvestris. Gesner quad. 765.

Martes abietum. Raii syn. quad. 200.

Baum-Marter. Klein quad. 64.

Mustela pilis in exortu ex cinereo al-

bidis castaneo colore terminatis, gutture flavo. Briffon quad. 179.

La Marte. De Buffon, vii. 186. tab. xxii. Schreber, cxxx.

Yellow-breasted Martin. Br. Zool. i. 81. Faunul. Sinens. Lev. Mus.

200. PINE.

W with a yellow breast and throat: the hair of a dark • chefnut-color, and of far superior fineness to the former; in other respects agreeing with it.

Inhabits the N. of *Europe*, *Asia*, and *America*: found also in *Great Britain* *: are not found about the river *Oby*, nor in any part of *Siberia*: inhabits large forests, especially those of pines: never lodges near houses, as the other species is said † to do: *M. de Buffon* says, that it brings but two or three young at a time: its prey is the same with the former; its fur of far greater value. The peninsula of *Kamtshatka*, and *North America*, abound with them: their skins a prodigious article of commerce. Those found about Mount *Caucasus*, with an orange throat, are esteemed the finest in the furriers shops.

* *M. de Buffon* says, we have none of these animals in *England*, *Parce qu'il n'y a pas de bois*. That gentleman never did our kingdom the honor of making a progress through it.

† All foreign writers agree in this; but those which inhabit my neighborhood always keep in the woods, except in their nocturnal excursions.

201. SABLE.

Zobela. *Agricola An. Subter.* 485.Mustela Sobella. *Gesner quad.* 768.Mustela Zibellina, the Sable. *Raii syn. quad.* 201. *Klein quad.* 64.Mustela Zibellina, *Aristoteli* Satherius, *Nipho* cebalus, *Alciato* Mus Samariticus et Scythicus. *Charleton Ex.* 20.Mustela Zibellina. *M. pedibus fissis,*corpore obscure fulvo, fronte exalbida, gutture cinereo. *Lin. syst.* 68.Mustela Zibellina. *Nov. Com. Petrop.* v. 330. *tab.* vi.Martes Zibellina. Mustela obscure fulvo, gutture cinereo. *Briffon quad.* 180.La Zibeline. *De Buffon*, xiii. 309.

W with long whiskers : rounded ears : large feet : white claws : long and bushy tail : color of the hair black at the tips, cinereous at the bottom : chin cinereous, sometimes white, yellow, or spotted : the edges of the ears yellowish : sometimes the hair has a tawny cast ; for in spring, after shedding the coat, the color varies : there are instances of their being found of a snowy whiteness *.

The size is equal to that of the Martin, to which it has a great resemblance in form : but this specific distinction must be noted—the tail of the *martin* is much longer than the hind legs, when extended ; that of the Sable shorter.

PLACE

Inhabits *Siberia*, *Kamtschatka*, and some of the *Kurile* isles, which lie between *Kamtschatka* and *Japan*. Notwithstanding what Mr. *Scheffer* says †, it is certain there are none to be found west of the *Urallian* mountains, from whence they increase in numbers, in proportion as you advance eastward.

Sables live in holes in the earth, or beneath the roots of trees : sometimes, like the martin, form nests in the trees, and will

* *Strahlenberg hist. Russia*, 442.† *Scheffer Lapl.* 136.

skip with great agility from one to the other : are very lively, and much in motion during night : sleep much in the day : one that was kept tame would, on sight of a cat, sit up on its hind legs : excrements most excessively foetid : prey, during summer, on ermines, weefels, and squirrels, but above all on hares ; in winter, on birds ; in autumn, on hurtleberries, cranberries ; and the berries of the service-tree : but during that season their skins are at the worst, that diet causing them to itch, and to rub off their fur against the trees : they bring forth at the end of *March*, or beginning of *April*, and have from three to five at a time, which they suckle for four or five weeks *.

Their chace was, in the more barbarous times of the *Russian* empire, the employ, or rather the tasks, of the unhappy exiles into *Siberia* : as that country is now become more populous, the fables have in great measure quitted it, and retired farther *North* and *East*, to live in desert forests and mountains. They live near the banks of rivers, or in the little islands in them † : on this account they have, by some, been supposed to be the *Σαδῆσιον* of *Aristotle*, *Hist. An. lib. viii. c. 5* ; which he classes with the animals conversant among waters.

At present the hunters of fables form themselves into troops, from 5 to 40 each ; the last subdivide into lesser parties, and each chuses a leader, but there is one that directs the whole : a small covered boat is provided for each party, loaden with provision, a dog and net for every two men, and a vessel to bake their bread in : each party also has an interpreter for the country they penetrate into : every party then sets out according to

* *Hist. Kamtschatka*, 109, &c.

† *Avril's Travels*, 140.

the course their leader points out : they go against the stream of the rivers, drawing their boats up, till they arrive in the hunting-country ; there they stop, build huts, and wait till the waters are frozen, and the season commences. Before they begin the chase, their leader assembles them, they unite in a prayer to the Almighty for success, and then separate : the first fable they take is called God's fable, and is dedicated to the church.

They then penetrate into the woods, mark the trees as they advance, that they may know their way back ; and in their hunting-quarters, form huts of trees, and bank up the snow round them : near these they lay their traps, then advance farther, and lay more traps, still building new huts in every quarter, and return successively to every old one, to visit the traps, and take out the game to skin it, which none but the chief of the party must do : during this time they are supplied with provisions by persons who are employed to bring it on sledges, from the places on the road where they are obliged to form magazines, by reason of the impracticability of bringing quantities thro' the rough country they must pass. The traps are a sort of pit-fall, with a loose board placed over it, baited with fish or flesh : when fables grow scarce, the hunters trace them in the new-fallen snow, to their holes, place their nets at the entrance, and sometimes wait, watching two or three days for the coming out of the animal : it has happened, that these poor people have, by the failure of their provisions, been so pinched with hunger, that, to prevent the cravings of appetite, they have been reduced to take two thin boards, one of which they apply to the pit of the stomach, the other to the back, drawing them tight together
by

by cords placed at the ends * : such are the hardships our fellow-creatures undergo, to supply the wantonness of luxury !

The season of chace being finished, the hunters re-assemble ; make a report to their leader of the number of fables each has taken ; make complaints of offenders against their regulations ; punish delinquents ; share the booty ; then continue at the headquarters 'till the rivers are clear of ice ; return home, and give to every church the dedicated furs.

The following is the commercial history of this fur-trade, which Dr. J. R. Forster was so obliging as to translate for me, from *Muller's Samlung Russ. Geschichte*, iii. 495 to 515, being an abstract from above 20 pages.

COMMERCIAL
HISTORY.

“ SABLE, SOBOL in *Russian* ; ZOBEL in *German* : their price varies, from 1 l. to 10 l. sterling, and above : fine and middling fable skins are without bellies, and the coarse ones are with them : forty skins make a collection called *Zimmer* : the finest fables are sold in pairs, perfectly similar, and are dearer than single ones of the same goodness ; for the *Russians* want those in pairs for facing caps, cloaks, tippetts, &c. The blackest are reputed the best. Sables are in season from *November* to *February* ; for those caught at any other time of the year are short-hair'd, and then called *Nedofaboli*. The hair of fables differs in length and quality : the long hairs, which reach far beyond the inferior ones, are called *Os* ; the more a skin has of such long hairs, the blacker they are, and the more valuable is the fur ; the very

* *Bell's Travels*, i. 245.

best

best have no other but those long and black hairs. *Motchkka* is a technical term in the *Russian* fur-trade, expressing the lower part of the long hairs; and sometimes it comprehends likewise the lower and shorter hairs: the above-mentioned best sable furs are said to have a black *Motchkka*. Below the long hairs are, in the greater parts of sable furs, some shorter hairs, called *Podofie*, i. e. *Under-Os*: the more *Podofie* a fur has, the less valuable: in the better kind of sables the *Podofie* has black tips, and a grey or rusty *Motchkka*: the first kind of *Motchkka* makes the middling kind of sable furs; the red one the worst, especially if it has but few *O*s: between the *O*s and *Podofie* is a low woolly kind of hair, called *Podfada*; the more *Podfada* a fur has, the less valuable, for the long hair will, in such case, take no other direction than the natural one; for the character of sables is, that notwithstanding the hair naturally lies from the head towards the tail, yet will it lie equally in any direction, as you strike your hand over it: the various combinations of these characters, in regard to *O*s, *Motchkka*, *Podofie*, and *Podfada*, make many special divisions of the goodness of furs: besides this, the furriers attend to the size, preferring always *cæteris paribus* the biggest, and those that have the greatest gloss: the size depends upon the animal being a male or female, the latter being always smaller. The gloss vanishes in old furs: the fresh ones have a kind of *bloomy* appearance, as they express it; the old ones are said to have done *blooming*: the dyed sables always lose their gloss, become less uniform, whether the lower hairs have taken the dye or not, and commonly the hairs are somewhat twisted or crisped, and not so strait as in the natural ones: some fumigate the skins, to make them look blacker; but
the

the smell, and the crisped condition of the long hair, betrays the cheat; and both ways are detected, by rubbing the fur with a moist linen cloth, which grows black in such cases.

“The *Chinese* have a way of dying the fables, so that the color not only lasts, (which the *Russian* cheats cannot do) but the fur keeps its gloss, and the crisped hairs only discover it: this is the reason that all the fables, which are of the best kind, either in pairs or separate, are carried to *Russia*; the rest go to *China*: the very best fables come from the environs of *Nertchitsk* and *Yakutsk*; and in this latter district, the country about the river *Ud* affords sometimes fables, of whom one single fur is often sold at the rate of 60 or 70 rubles (12 or 14 l.). The *bellies* of fables, which are sold in pairs, are about two fingers breadth, and are tied together by forty pieces, which are sold from 1 to 2 l. sterling. *Tails* are sold by the hundred; the very best sable furs must have their tails, but ordinary fables are often cropped, and a hundred sold from 4 to 8 l. sterling: the *legs* or *feet* of fables are seldom sold separately. White fables are rare, and no common merchandize, but bought only as curiosities: some are yellowish, and are bleached in the spring on the snow.”

The common fables are scarcely better in hair and color than the martin.

The sable is found again in *North America*. The *Russians* have often discovered the skins mixed with those of martins, in the fur-dresses which the *Ichutski* get from the *Americans* by way of exchange. Their fur is more glossy than that of the *Siberian* sable, and of a bright chesnut-color; but of a coarser quality. It

is

is to be observed, that no fables are found N. E. of the river *Anadyr*, the country of the *Ichutcki* *.

The information I received from Doctor *Pallas*, respecting the character of this animal, obliges me to lay aside my notion of its being found in the new world, under the name of *The Fisher*; yet I have reason to suppose I have recovered it on that continent, by seeing the skin of a quadruped highly resembling it, in the cabinet of Mrs. *Blackburn*, sent from *Canada*; which I describe under the name of the

AMERICAN.

Its length, from nose to tail, was twenty inches. The trunk of the tail only five inches: but from the rump to the end of the hairs eight. The ears more pointed than those of the *Asiatic* fable: feet very large, hairy above and below: five toes with white claws on each foot.

COLOR.

Color of the head and ears whitish: whiskers short and black: whole body of a light tawny: feet brown. This seems to have been one of the bleached kind before mentioned.

202. FISHER.

W. with a black nose: strong and stiff whiskers: six small • weefel-like teeth above and below: six large canine teeth: four grinding teeth in each upper jaw; three sharp-pointed, the fourth flat: in the lower jaws six; the last flatted, the next tridentated; the next to those bidentated: ears broad and round, dusky on their outsides, edged with white: face and sides of the neck pale brown, or cinereous, mixed with black: hairs on the back, belly, legs, and tail, black; brownish at their base: sides brown: the feet very broad; covered with hair even

* Doctor *Pallas*.

on their soles: five toes on the fore feet; generally four, but sometimes five, on the hind feet; with sharp, strong, and crooked white claws: fore legs shorter than those behind: tail full and bushy, smallest at the end, seventeen inches long: length, from nose to tail, twenty-eight inches.

Inhabits *North America*: notwithstanding its name, is not amphibious: preys on all sorts of lesser quadrupeds*: by the number of skins imported, is not an uncommon animal; not less than 580 being brought in one season from *New York* and *Pensylvania*: seems to be the animal called by *Josselyn* †, the *SABLE*; which, he says, is perfectly black. I have seen many of the skins, which vary in color. *LEV. MUS.*

Le Vanfire. De Buffon, xiii. 167. tab. xxi.

203. *MADAGASCAR.*

W. with short ears: the hair on the whole body brown at the roots, and barred above with black, and ferruginous: the tail of the same color: the length, from nose to tail, about fourteen inches; the tail, to the tip of the hairs at the end, near ten.

Inhabits *Madagascar*.

* By a letter from Mr. *Peter Collinson*, who received the account from *Bartram*, of *Pensylvania*.

† *Josselyn's voy.* 87.

204. PEKAN.

Le Pekan, *De Buffon*, xiii. 304. tab. xlii. *Schreber*, cxxxiv. *LEV. Mus.*

W. with very long and strong whiskers: ears a little pointed: hair on the head, back, and belly, cinereous at the roots, of a bright bay at the ends; very soft and glossy: on the sides is a tinge of grey: between the fore-legs a white spot: legs and tail black: toes covered with thick hair, above and below: claws sharp.

In form like a martin: its length, from nose to tail, one foot seven inches: the length of the trunk of the tail above ten; and the hairs extend an inch beyond.

Inhabits *North America*: described from a skin.

205. VISON.

Le Vison. *De Buffon*, xiii. 308. tab. xliii.

W. with rounded ears: color of the hair brown, tinged with tawny, very bright and glossy: beneath is a thick down, cinereous tipped with rust-color: legs very short: tail dusky.

SIZE.

Length to the tail above seventeen inches: tail, to the extremity of the hairs, nine.

PLACE.

Inhabits *North America*: described from the stuffed skins, in 1765, in the cabinet of M. *Aubry*, curate of *Saint Louis*, in *Paris*. A fuller account of this and the preceding animal is desired.

W. with

W. with rounded ears: broad and blunt nose: dusky irides: head flat: face, crown, legs, rump, and tail, black: chin and cheeks white: throat of a rich yellow: back and belly of a pale yellow, intimately mixed with cinereous.

206. WHITE-CHEEKED.

Length, from nose to tail, eighteen inches: tail of the same length, covered with long hair.

SIZE.

Described from the living animal at Mr. *Brooks's*, April 1774. Place unknown.

Le Grison. *De Buffon*, xvi. 169. tab. xxv. *Allamand*, v. 65. tab. viii. *Schreber*, cxxiv.

207. GRISON.

W. with large head and eyes: short but broad ears: upper part of the body of a deep brown, each hair tipped with white, which gives it a grey or hoary look: from each side of the forehead extends a broad white line, passing over the eyes, and reaching as far as the shoulders: the nose, throat, and whole under side of the body, thighs, and legs, black.

Length, from the tip of the nose to the origin of the tail, seven inches. By the figure, the tail is little more than half the length of the body.

SIZE.

Inhabits *Surinam*, but is a very scarce animal: first described by Mr. *Allamand*.

208. GUINEA.

Galera, subfusca, cauda elongata, auribus subnudis appressis. *Browne's Jamaica*, 485. tab. xlix.

Le Tayra, ou le Galera. *De Buffon*, xv. 155. *Schreber*, cxxxv.

W. with the upper jaw much longer than the lower: eyes placed mid-way between the ears and tip of the nose: ears like the human: tongue rough: tail declining downwards, lessening towards the point: feet strong, and formed for digging: shape of the body like that of a rat: size of a small rabbit: of a dusky color: the hair rough.

PLACE.

Inhabits *Guinea*: common about the negro settlements: burrows like a rabbit: very fierce; if drove to necessity will fly at man or beast: very destructive to poultry: seems to be the *Kokeboe* of *Bosman**, which only differs in color, being red.

209. GUIANA.

Mustela barbarus. *M. pedibus fissis atra, collo subtus macula alba triloba. Lin. syst.* 67.

Mustela maxima atra moscum redolens. Tayra, grosse Belette. Barrere France Equin. 155.

W. with round ears, covered with down: an ash-colored space between the eyes: a trilobated spot on the lower part of the neck: size of a martin: color black: hairs coarse.

PLACE.

Inhabits *Brazil* and *Guiana*: when it rubs itself against trees, leaves behind an unctuous matter, that scents of musk.

* *Hist. Guiana*, 239.

La petite Fouine de la Guiane. *De Buffon Suppl.* iii. 162. tab. xxiv.

210. WOOLLY.

W with a long slender nose: upper jaw longer than the lower: ears very short and round: body covered with woolly hair: tail taper, ending in a point, between eight and nine inches long: body, from nose to tail, between fifteen and sixteen.

M. *de Buffon* does not mention the color; by his figure the belly seems white. He says it inhabits *Guiana*. I am doubtful whether it is not one of the above species.

Ichneumon. *Aristot. hist. An. lib. ix. c. 6.*
Oppian Cyneg. iii. 407.

Ichneumon. *Plinii, lib. viii. c. 24.*

L'Ichneumon, que les *Egyptiens* nomment Rat * de Pharaon. *Belon obs.* 95. *Partraits*, 106. *Prosp. Alp. i. 234.*
Gesner quad. 566. Raii syn. quad. 202.
Shaw's Travels, 249, 376.

Mustela Ægyptiaca. *Klein quad. 64.*

Meles Ichneumon digitis mediis longioribus, lateralibus æqualibus, unguibus subuniformibus. *Hasselquist itin. 191.*
Ichneumon: Mus Pharaonis vulgo. *Briffon quad. 181.*

Viverra Ichneumon. V. cauda e basi incrassata sensim attenuata, pollicibus remotiusculis. *Lin. syst. 63. Schreber, cxvi. A. LEV. Mus.*

211. ICHNEUMON.

β. INDIAN. Quil, vel Quirpele. *Garcia Arom. 214. Raii syn. quad. 197.*

Viverra Mungo. *Kämpfer Amœn.* 574.

De Mongkos. *Valentyn Amboin. iii.*
Serpenticida five Moncus. *Rumph. herb. Amboin. App. 69. tab. xxviii.*

Indian Ichneumon. *Edw. 199,*

Ichneumon seu vulpecula Ceilonica. *Seb. Mus. i. 66. tab. xli. fig. 1.*

La Mangouste. *De Buffon, xiii. 150. tab. xix. Le Nems, tom. xvi. 174. tab. xxvii.*

Viverra indica. V. ex griseo rufescens. *Briffon quad. 177. Raii syn. quad. 198. Schreber, cxvi. LEV. Mus.*

W with bright flame-colored eyes: small rounded ears, almost naked: nose long and slender: body thicker than

* The *Ægyptians* never style it *Phar*, or *Moufe*, but *Nems*, or *Ferret*, from its resemblance to that animal. *Hasselquist*, 196. This *Forsk.* confirms, p. 111.

that of others of this genus : tail very thick at the base, tapering to a point : legs short : the hair is hard and coarse : color various in different animals, from different countries ; in some alternately barred with dull yellowish brown and white ; in others, pale brown and mouse-coloured ; so that the animal appears mottled : throat and belly of a uniform brown : beneath the tail is an orifice not unlike that of a badger.

The specimen in the *Asbmolean Museum* was thirteen inches and a half long to the origin of the tail ; the tail eleven : the *Ægyptian* variety is the largest. Some are forty-two inches long from the nose to the extremity of the tail. *M. de Buffon* gives the figure of one, in the xxvith plate of his Supplement, vol. iii. under the name of *La Grande Mangouste* : the tail is longer, and more slender than that of the common kind, and the hair universally more broken and coarser.

Inhabits *Ægypt*, *Barbary*, *India*, and its *islands* : a most useful animal ; being an inveterate enemy to the serpents and other noxious reptiles which infest the torrid zone : attacks without dread that most fatal of serpents the *Naja*, or *Cobra di Capello* ; and should it receive a wound in the combat, instantly retires ; and is said to obtain * an antidote from a certain herb ; after which

* A fact, as yet, not well established : Botanists are not yet agreed about the species of this sanative plant, whose use, it is pretended, this weasel pointed out to mankind : those who have seen the combats between the *Ichneumon* and *Naia*, never could discover it : *Kæmpfer*, a writer of the first authority, who visited *India*, and who had a tame *Ichneumon*, and been witness to its battles with the serpent, says no more than that it retired and eat the roots of any herb it met with. It is from the *Indians* he received the account of the root, whose veracity he

which it returns to the attack, and seldom fails of victory. Is a great destroyer of the eggs of crocodiles, which it digs out of the sand; and even kills multitudes of the young of those terrible reptiles: it was not therefore without reason, that the antient *Ægyptians* ranked the *Ichnemumon* among their Deities: is at present domesticated, and kept in houses in *India* and in *Ægypt*; for it is more useful than a cat, in destroying rats and mice: grows very tame: is very active; springs with great agility on its prey; will glide along the ground like a serpent, and seem as if without feet: sits up like a squirrel, and eats with its fore feet: catches any thing that is flung to it: is a great enemy to poultry: will feign itself dead till they come within reach: loves fish: draws its prey, after sucking the blood, to its hole: its excrements very foetid: when it sleeps, brings its head and tail under its belly, appearing like a round ball, with two legs sticking out. *Rumphius* observes how skilfully it seizes the serpents by the throat, so as to avoid receiving any injury: and *Lucan* beautifully de-

he speaks most contemptuously of. *Amæn. Exot.* 576. *Rumphius* never saw the plant growing; but describes it from a specimen sent him from *Java*; for he says the *Indians* would persuade him that it had no leaves. Vide *Herb. Amboin. App.* 71. All that seems certain is, that the *Indians* have a plant, of whose alexipharmic virtues they have a high opinion, and are said to use it with success against the dreadful *macassar* poison, and the bite of serpents. *Kämpfer* says he had good success with one species, in putrid fevers, and found it infallible for the bite of a mad dog. As there is no doubt but a most useful plant of this nature does exist in the *Indies*, it is to be hoped that strict enquiry will be made after it. In order to direct their searches, they are referred to

Garcia ab Horto's Hist. Aromaticum in Clus. Exot. 214.

Kämpfer Amæn. Exot. 573. *Rumph. Herb. Amboin. App.* 29.

Amæn. Acad. ii. 89. *Flora Zeylanica*, 46, 190, 239.

scribes the same address of this animal, in conquering the *Ægyptian Asp.*

*Aspidas ut Pharias cauda solertior hostis
Ludit, et iratas incerta provocat umbra :
Obliquansque caput vanas serpentis in auras
Effusæ toto comprehendit guttura morsu
Letiferam citra saniem : tunc irrita pestis
Exprimitur, faucesque fluunt persunte veneno. Lib. iv. 724.*

Thus oft' th' *Ichneumon*, on the banks of *Nile*,
Invades the deadly *Aspic* by a wile ;
While artfully his slender tail is play'd,
The serpent darts upon the dancing shade ;
Then turning on the foe with swift surprize,
Full on the throat the nimble seizer flies :
The gasping snake expires beneath the wound,
His gushing jaws with poisonous floods abound,
And shed the fruitless mischief on the ground.

Rowe.

212. FOUR-TOED. Le Surikate. *De Buffon*, xiii. 72. tab. viii. *Schreber*, cxvii. *Miller's plates*, xx.

W with a very sharp-pointed nose : head depressed : cheeks
• inflated : upper jaw much longer than the lower ; tip
black ; whiskers black, arising from warty tubera : irides dusky :
region about the eyes black : ears small, rounded, black, lying
close to the head.

Tongue oblong, blunt, aculeated backwards.

Six small incisores ; two long canine in each jaw, and five
grinders on each side.

Back

XXXVI.

P.337



YELLOW WEESEL. N°213.

Back very broad, and a little convex: belly broad and flat.

Legs short: feet small, naked at the bottom; four toes on each: the claws on the fore feet long, like those of the badger; on the hind feet short.

Color of the hairs brown near the bottom, black near the ends, and hoary at the points; those on the back undulated: inside of the legs yellowish brown: tail tufted with black.

Length from nose to tail eleven inches; of tail eight: the last thick at the base, ending pretty abrupt.

Inhabits the *Cape of Good Hope*, where it is called *Meer-rat*: feeds on flesh; preys on mice; is a great enemy to *Blattæ*: is always making a grunting noise: is much in motion: sits quite erect, dropping its fore legs on its breast, and moving its head with great ease, as if on a pivot, and appearing as if it listened, or had just spied something new. When pleased, it makes a rattling noise with its tail, for which reason the *Dutch* at the *Cape* call it *Klapper-maus**. It is also found in *Java*, where the *Javanese* style it *Jupe*; the *Dutch*, *Suracatje**. The animal which I examined was brought alive from the *Cape*.

Yellow maucauco. *Syn. quad.* No. 108.

213. YELLOW.

W with a short dusky nose: small eyes: ears short, broad, and flapping, and placed at a great distance from each other: head flat and broad: cheeks swelling out: tongue very long: legs and thighs short, and very thick: five toes to each foot, separated and standing all forward: claws large, a little hooked, and of a flesh-color.

* *Pallas Miscel. Zool.* 59, 60.

X x

The

The hairs short, soft, glossy, closely set together: on the head, back, and sides a mixture of yellow and black: cheeks, inside of the legs, and the belly, yellow: half way down the middle of the belly is a broad dusky list, ending at the tail; and another from the head along the middle of the back to the tail: tail of a bright tawny, mixed with black; is round, and has the same prehensile faculty as some of the monkies have: length from the nose to the tail nineteen inches; of the tail seventeen.

MANNERS.

It was very good-natured and sportive; would catch hold of any thing with its tail, and suspend itself: lay with its head under its legs and belly.

PLACE.

Shewn about twelve years ago in *London*: its keeper said it came from the mountains of *Jamaica*, and called it a *Potto*, the name given by some writers to a species of *Sloth* found in *Guinea*. *LEV. Mus.*

Le Kinkajou. De Buffon, xvi. 244. tab. I.

214. MEXICAN.

W with a short dusky nose: tongue of a vast length: small eyes, encircled with dusky: ears short and rounded, and placed very distant: the hairs short; on the head, upper part of the body, and the tail, the colors are yellow, grey, and black intermixed: the sides of the throat and under side, and the insides of the legs, of a lively yellow: the belly of a dirty white, tinged with yellow.

SIZE.

The toes separated: the claws crooked, white, guttered beneath. The length from head to tail two feet five (*French*); of the tail, one foot three: the tail is taper, covered with hair, except beneath,

beneath, near the end, which is naked, and of a fine flesh-color. It is extremely like the former ; but larger in all its parts.

Like the former, it has a prehensile tail, and is naturally very good-natured: goes to sleep at approach of day; wakes towards night, and becomes very lively: makes use of its feet to catch at any thing: has many of the actions of a monkey: eats like a squirrel, holding the food in its hands: has variety of cries during night; one like the low barking of a dog: its plaintive note is cooing; its menacing, hissing; its angry, confused.

MANNERS.

Is very fond of sugar, and all sweet things: eats fruits, and all kinds of vegetables: will fly at poultry, catch them under the wing, suck the blood, and leave them without tearing them: prefers a duck to a pullet; yet hates the water.

M. *de Buffon* calls this animal *le Kinkajou*, after a description (given by M. *Dennis*) of one of that name found in *N. America*, described also by *Charlevoix*, under the name of *Carcajou*; both which, in fact, are the same as my *Puma*, N° 160. M. *Dennis* gives it the same manners; adds, that it climbs trees, watches the approach of the moose, falls on, and soon destroys it. He says, he lost a heifer by one of those animals, which at once eat through its neck; but the quadruped in question never could have the powers attributed to so ferocious a creature. This therefore is new, and by form and manners a proper concomitant of the animal last described.

This animal was brought to *Paris* from *New Spain*, and lived there two or three years. It is a very distinct species from the former, of which M. *de Buffon* gives a very indifferent figure, taken from the animal I describe.

215. BRASILIAN. Coati. *Marcgrave Brasil.* 228. *De Lact.* 486. *Raii syn. quad.* 180. *Klein quad.* 72. *Vulpes minor*, rostro superiore longiufculo, cauda annulatim ex nigro et rufo variegatâ. *Quachy. Barrere France Æquin.* 167. *Viverra nasua. V. rufa*, cauda albo annulato. *Lin. syst.* 64. *Ursus naso producto et mobili*, cauda annulatim variegata. *Briffon quad.* 190. *Le Coati brun. De Buffon*, viii. 358. *tab. xlviii. Schreber*, cxviii. *Badger of Guiana. Bancroft*, 141. *LEV. Mus.*

W with the upper jaw lengthened into a pliant, moveable • *proboscis*, much longer than the lower jaw : ears rounded : eyes small : nose dusky : hair on the body smooth, soft, and glossy, of a bright bay color : tail annulated with dusky and bay : breast whitish : length, from nose to tail, eighteen inches ; tail, thirteen.

β. DUSKY. Nose and ears formed like the preceding : above and beneath the eye two spots of white : hair on the back and sides dusky at the roots, black in the middle, and tipped with yellow : chin, throat, sides of the cheeks, and belly, yellowish : feet black : tail annulated with black and white ; sometimes the tail is of an uniform dusky color *. *Le Coati noiratre* of M. de Buffon. *tab. xlvii. Schreber*, cxix. *The Coati-mondi* of Marcgrave.

Inhabits *Brasil* and *Guiana* : feeds on fruits, eggs, and poultry : runs up trees very nimbly : eats like a dog, holding its food be-

* Described as a distinct species by *Linnaeus*, under the title of *viverra Narica. V. subfusca*, cauda unicolore, 64. and by M. *Briffon*, under that of *Ursus naso producto et mobili*, cauda unicolore, 190.

tween its fore-legs : is easily made tame : is very good-natured : makes a sort of whistling noise : seems much inclined to sleep in the day. *Marcgrave* observes, that they are very subject to gnaw their own tails.

Yzquiepatl. *Hernandez Mex.* 332. *Raii*
syn. quad. 181. *Klein quad.* 72.
Meles Surinamensis. Brisson quad. 185.
Ichneumon de Yzquiepatl. Seb. Mus. i.

tab. xlii.
Le Coase. De Buffon ? xiii. 288. *tab.*
 xxxviii. *Schreber, cxx.*

216. STIPLING.

W with a short slender nose : short ears and legs : black body, full of hair : tail long, of a black and white color : length, from nose to tail, about eighteen inches.

Inhabits *Mexico*, and perhaps other parts of *America*. This, and the four following species, remarkable for the pestiferous, suffocating, and most foetid vapour they emit from behind, when attacked, pursued, or frightened : it is their only means of defence : some turn * their tail to their enemy, and keep them at a distance by a frequent *crepitus* ; and others ejaculate their urine, tainted with the horrid effluvia, to the distance of eighteen feet : the pursuers are stopped by the terrible stench : should any of this liquid fall into the eyes, it almost occasions blindness ; if on the cloaths, the smell will remain for several days, in spite of all washing ; they must even be buried in fresh soil, in order to be sweetened. Dogs that are not true bred, run back as soon as they perceive the smell ; those that have been used to it, will kill the animal ; but are often obliged to relieve them-

* *Wood's voy.* in *Dampier*, iv. 96 ; the rest of the account is taken from *Catesby* and *Kalm*.

selves

selves by thrusting their noses into the ground. There is no bearing the company of a dog that has killed one, for several days.

Professor *Kalm* was one night in great danger of being suffocated by one that was pursued into a house where he slept; and it affected the cattle so, that they bellowed through pain. Another, which was killed by a maid-servant in a cellar, so affected her with its stench, that she lay ill for several days: all the provisions that were in the place were so tainted, that the owner was obliged to throw them away.

Notwithstanding this, the flesh is reckoned good meat, and not unlike that of a pig: but it must be skinned as soon as killed, and the bladder taken carefully out. The *Virginian* species, or *skunk*, is capable of being tamed, and will follow its master like a dog: it never emits its vapour, except terrified.

It breeds in hollow trees, or holes under ground, or in clefts of rocks: climbs trees with great agility: kills poultry, eats eggs, and destroys young birds.

217. STRIATED.

Pole-cat, or Skunk. *Lawson Carolina.*

Pole-cat. *Catesby Carolina*, ii.

Mustela Americana foetida. Klein quad.
64.

Mustela nigra tæniis in dorso albis.
Briffon quad. 181.

Viverra putorius. V. fusca lineis quatuor dorsalibus parallelis albis. Lin. syst. 64.

Le Conepate. De Buffon, xiii. 288. *tab.*
xl. *Schreber*, cxxii.

W with rounded ears: head, neck, belly, legs, and tail,
• black: the back and sides marked with five parallel white lines; one on the top of the back; the others on each side: the second extends some way up the tail, which is long,
and

and bushy towards the end: size of an *European* Pole-cat; the back more arched: varies in the disposition of the stripes.

Inhabits *N. America*: when attacked, bristles up its hair, and flings its body into a round form: its vapour horrid. *Du Pratz* says, that the male of the *Pole-cat*, or *Skunk*, is of a shining black: perhaps the *Coase* of *M. de Buffon* is the male; for his description does not agree with the *Xzquiepatl*, which he makes synonymous.

Chinche. *Feuilleè obs. Peru*, 1714, p. 272. *Enfant du Diable, Bete puante. Charle-voix Nouv. France*, v. 196.
 Skunk, Fiskatta. *Kalm's voy. Forster's* Le Chinche. *De Buffon*, xiii. 294. tab. tr. i. 273. tab. ii. *Josselyn's voy.* 85. xxxix. *Schreber*, cxxi. *LEV. Mus.*

218. SKUNK.

W with short rounded ears: black cheeks: a white stripe from the nose, between the ears, to the back: upper part of the neck, and the whole back, white; divided at the bottom by a black line, commencing at the tail, and passing a little way up the back: belly and legs black: tail very full of long coarse hair; generally black, sometimes tipped with white: that figured by *M. de Buffon* entirely white: nails on all the feet, very long, like those on the fore-feet of a badger. Rather less than the former.

Inhabits *Peru*, and *N. America*, as far as *Canada*: of the same manners and stench with the others.

219. ZORILLA.

Annas of the Indians, *Zorrinas* of the Spaniards. *Garcilasso de la Vega*, 331. *Mariputa*, *Mafutiliqui*. *Gumilla Orenoque*, iii. 240. *De Buffon*, *Schreber*, cxxiii.

W with the back and sides marked with short stripes of black and white; the last tinged with yellow: tail long and bushy; part white, part black: legs and belly black. Less than the preceding.

Inhabits *Peru*, and other parts of *S. America*: its pestilential vapour overcomes even the panther of *America*, and stupefies that formidable enemy.

220. RATEL.

Viverra Ratel. *Sparman Stock*. *Wettfk*. *Stink-bingsem*. *Kolben*, ii. 133. *Hondl*. 1777, 148. tab. iv. *Blaireau puant*. *Voy. de la Caille*, 182.

W with a blunt black nose: no external ears; in their place, only a small rim round the orifice: tongue rough: legs short: claws very long; strait, like those of a badger, and guttered beneath: color of the forehead, crown, and whole upper part of the body, of a cinereous grey: cheeks, and space round the ears, throat, breast, belly, and limbs, black: from each ear to the tail extends along the sides a dusky line, leaving beneath another of grey.

SIZE.

Length from nose to tail forty inches: of the tail, twelve: fore claws, an inch and three quarters long: hind claws one inch.

PLACE.

Inhabits the Cape of *Good Hope*; lives on honey, and is a great enemy

enemy to bees, which in that country usually inhabit the deserted burrows of the *Æthiopian* boar, the porcupine, jackals, and other animals: preys in the evening: ascends to the highest parts of the deserts to look about, and will then put one foot before its eyes, to prevent the dazzling of the sun. The reason of its going to an eminence, is for the sake of seeing or hearing the *honey-guide cuckoo* *, which lives on bees, and, as it were, conducts it to their haunts: the *Hottentots* profit of the same guide. This animal cannot climb; but when he finds the bees lodged in trees, through rage at the disappointment, will bite the bark from the bottoms: by this sign also, the *Hottentots* know that there is a nest of bees above.

MANNERS.

The hair is very stiff, and the hide so tough, probably formed so by nature, as a defence against the sting of bees, that it is not easily killed. It makes a stout resistance by biting and scratching, and the dogs cannot fasten on its skin. A pack which could tear a middle-sized lion to pieces, can make no impression on the hide of this beast: by worrying, they will leave it for dead, yet without inflicting on it any wounds.

This seems to be the *Stinkblinsem* of *Kolben*, and *Blaireaupuant* of *La Caille*, which they brand for the horrible stench which it emits from behind, by breaking wind; but the *Abbè* says, it quickly discharges the noisome air. Mr. *Sparman* is silent in respect to this circumstance. The *Hottentots* call it *Ratel*.

To some animal of this species must be referred, in all probability, the *quoll* of *New Holland*; which is described as resembling

221. QUOLL.

* A new species, very fond of honey, which by its noise directs men, as well as this beast, to the bees nest. *Sparman*, in *Phil. Trans.* lxxvii. 43.

a pole-cat, with a brown back, spotted with white, and the belly of a pure white, in which it differs from the others of these foetid animals. Seen by Captain *Cook* in *New Holland*, where the natives call it *Quoll* *.

222. BLOTCHED.

Viverra tigrina. *Schreber*, tab. cxv.

W with a round head: short nose: pointed ears: white
• whiskers: yellowish white nose and cheeks; a round black spot on each side of the former: a dusky line down the middle of the forehead: back and outside of the limbs a reddish brown: sides and thighs yellowish white, blotched with deep brown: tail as long as the body; of a reddish brown color; marked spirally near the end with black.

Described from the print in Mr. *Schreber*'s work, the letter-press not being at this time arrived.

223. CIVET.

La civette qu'on nommoit anciennement Hyæna. *Belon. obs.* 94.

Zibettus. Caii opusc. 43.

Felis Zibethus. Gesner quad. 837.

Animal Zibethicum, masc. et fœm. *Hernandez Mex.* 580, 581.

Civet Cat. *Raii syn. quad.* 178.

Coati civetta vulgo. *Klein quad.* 73.

Meles fasciis et maculis albis nigris et rufescentibus variegata. Briffon quad. 186.

Viverra Zibetha. V. cauda annulata, dorso cinereo nigroque undatim striato. Lin. syst. 65.

La Civette. *De Buffon*, ix. 299. tab. xxxiv. *Schreber*, cxi. *Lev. Mus.*

W with short rounded ears: sky-blue eyes: sharp nose; the
• tip black: sides of the face, chin, breast, legs, and feet, black: the rest of the face, and part of the sides of the

* *Cook's voy.* 1770. iii. 626.

neck, white, tinged with yellow : from each ear are three black stripes, ending at the throat and shoulders : the back and sides cinereous, tinged with yellow, marked with large dusky spots disposed in rows : the hair coarse ; that on the top of the body longest, standing up like a mane : the tail sometimes wholly black ; sometimes spotted near the base : length, from nose to tail, about two feet three inches ; the tail fourteen inches : the body pretty thick.

Inhabits *India* *, the *Philippine* isles †, *Guinea* ‡, *Æthiopia* §, and *Madagascar* § : the famous drug *musk*, or civet, is produced from an aperture between the privities and the anus, in both sexes, secreted from certain glands. The persons who keep them, procure the musk by scraping the inside of this bag twice a week with an iron *spatula*, and get about a dram each time ; but it is seldom sold pure, being generally mixed with suet or oil, to make it more weighty : the males yield the most ; especially when they are previously irritated. They are fed, when young, with pap made of millet, with a little flesh or fish ; when old, with raw flesh : in a wild state prey on fowl.

PLACE.

* *Dellon's voy.* 82. † *Argensola*, iii. ‡ *Bosman*, 238. *Barbot.* 114.
 § *Rauwolf's Travels*, ii. 482. § *Flacourt's Madagascar*, 154 ; where it is called *Falanouc*.

β. ZIBET. Animal Zibethecum Ame-
ricanum. *Hernandez Mex.* 538.
Felis Zibethus. *Gesner quad.* 836.

Le Zibet. *De Buffon*, 299. *tab.* xxxi.
Schreber, cxii.

W with short rounded ears: sharp long nose: pale cinereous face: head, and lower part of the neck, mixed with dirty white, brown, and black: sides of the neck marked with stripes of black, beginning near the ears, and ending at the breast and shoulders: from the middle of the neck, along the ridge of the back, extends a black line, reaching some way up the tail: on each side are two others: the sides spotted with ash-color and black: the tail barred with black and white; the black bars broader on the upper side than the lower.

A variety first distinguished from the other by *M. de Buffon*; but figured long before by *Hernandez* and *Gesner*: unknown in *Mexico**, till introduced there from the *Philippine* isles. These animals seem not to be known to the antients: it is probable the drug was brought without their knowing its origin; for it is certain the fine gentlemen at *Rome* used perfumes.

Pastillos Rufillus olet.

* *Fernandez Nov. Hisp.* ii.

La Genette. *Belon obs.* 74.

Genetha. *Gesner quad.* 549, 550.

Genetta vel Ginetta. *Raii syn. quad.* 201.

Coati, ginetta Hispanis. *Klein quad.* 73.

Mustela cauda ex annulis alternatim albidis et nigris variegata. Briffon

quad. 186.

Viverra Genetta. V. cauda annulata, corpore fulvo-nigricante maculato. Lin. syst. 65.

La Genette. *De Buffon*, ix. 343. *tab.* xxxvi. *Schreber*, cxiii. *LEV. MUS.*

224. GENET.

W with ears a little pointed: slender body: very long tail: color of the body a pale tawny, spotted with black; and the ridge of the back marked with a black line: the tail annulated with black and tawny: feet black: sometimes the ground color of the hair inclines to grey: about the size of a martin; but the fur is shorter.

Inhabits *Turky*, *Syria*, and *Spain*; frequents the banks of rivers; smells faintly of musk, and, like the civet, has an orifice beneath the tail; is kept tame in the houses at *Constantinople*, and is as useful as a cat in catching mice.

PLACE.

La Fossane. *De Buffon*, xiii. 163. *tab.* xx. *Schreber*, cxiv. *LEV. MUS.*

225. FOSSANE.

W with a slender body: rounded ears: black eyes: body and legs covered with cinereous hair, mixed with tawny: from the hind part of the head, towards the back and shoulders, extend four black lines: the whole under side of the body of a dirty white: tail semi-annulated.

Inhabits

PLACE.

Inhabits *Madagascar*, and *Guinea*, *Cochin-china*, and the *Philippine* isles : is fierce, and hard to be tamed : in *Guinea* is called *Berbe* ; by the *Europeans*, Wine-bibber, being very greedy of *Palm-wine* * : destroys poultry : is, when young, reckoned very good to eat †.

The specimen in the *Leverian Museum* differed in so many respects, that it is necessary to give a full description of it.

W. with a white spot on each side of the nose, and another beneath each eye : the rest of the nose, cheeks, and throat, black : ears very large, upright, rounded, thin, naked, and black : forehead, sides, thighs, rump, and upper part of the legs, cinereous : on the back are many long black hairs : on the shoulders, sides, and rump are dispersed some black spots : tail black towards the end ; near the base mixed with tawny, and slightly annulated with black : feet black : claws white.

Size of the Genet, to which it bears a great resemblance : tail of the length of the body.

* *Bosman*, 239.

† *Flacourt's hist. Madagascar*, 512 ; where it is called *Fossa*.

Six cutting teeth, two canine, in each jaw.

Five toes on each foot; each toe connected by a strong web.

XXIV. OTTER.

Lutra. Agricola An. Subter. 482. *Gesner quad.* 687. *Raii syn. quad.* 187.
Wydra. Rzaczynski Polon. 221.
Otter. Klein quad. 91.
Mustela Lutra. M. plantis palmatis nudis, cauda corpore dimidio brevior. Lin. syst. 66. *Utter. Faun. suec. No.* 12.

Lutra castanei coloris. Brisson quad. 201. 226. GREATER.
Le Loutre. Belon Aquat. 26. *De Buffon, vii.* 134. *tab. xi. Schreber, cxxvi. A. B.*
Otter. Br. Zool. i. N° 19. Br. Zool. illustr. tab. c. LEV. Mus.

O with short ears: eyes placed near the nose: lips thick: whiskers large: the color a deep brown, except two small spots each side the nose, and another beneath the chin: the throat and breast cinereous: legs short and thick, and loosely joined to the body; capable of being brought on a line with the body, and performing the part of fins; each toe connected to the other by a broad strong web.

The usual length, from the tip of the nose to the base of the tail, is twenty-three inches; of the tail sixteen: the weight of the male otter, from eighteen to twenty-six pounds; of the female, from thirteen to twenty-two.

SIZE.

Inhabits all parts of *Europe*, N. and N. E. of *Asia*, even as far as *Kamtschatka*; is found in none of the *Aleutian* or *Fox Islands*, except in the easternmost, which are supposed to be near to the new world: abounds in *North America*, particularly in *Canada*, where the most valuable furs of this kind are produced: dwells in the banks of rivers; burrows, forming the entrance of its hole beneath the water; works upwards towards the surface of the earth, and makes a small orifice, or air-hole, in the midst of some

PLACE.

some bush: is a cleanly animal, and deposits its excrements in only one place: swims and dives with great ease: very destructive to fish; if they fail, makes excursions on land, and preys on lambs and poultry. Sometimes breeds in sinks and drains; brings four or five young at a time: hunts its prey against the stream; frequents not only fresh waters, but sometimes preys in the sea; but not remote from shore: will give a sort of loud whistle by way of signal to one another*: is a fierce animal; its bite hard and dangerous: is capable of being tamed, to follow its master like a dog, and even to fish for him, and return with its prey.

The *Latax* of *Aristotle* †; possibly a large variety of Otter ‡.

• *Leonard Baldner*, iii. 139. fig. This was the person whom Mr. *Willughby* calls a fisherman on the *Rhine*, of whom, on his travels in 1663, he bought a most beautiful and accurate collection of drawings of birds, fish, and a few beasts, frequenting that great river about *Straßbourg*, of which city *Leonard* styles himself, fisherman and burgher. The work is dated in 1653. If I may judge from the elegance of his dress, in the portrait prefixed to the first volume, it should appear that he was a person of considerable wealth. A *German MS.* description is placed opposite to each drawing. This valuable work is now in the possession of *EDWARD KING, Esq;* and had been bought by a relation of his out of the collection of *Dr. MEAD*.

† *Hist. An. lib. viii. c. 5.* vide *Br. Zool. i. 86. 4to.*

‡ Mr. *Banks*, on his return from *Newfoundland*, was so obliging as to communicate to me the following account of some animals seen by a gentleman who went on that voyage; which I take the liberty of inserting here, as they bear some relation to the Otter in their way of life. He observed, sitting on a rock, near the mouth of a river, five animals, shaped like *Italian* grehounds, bigger than a fox, of a shining black color, with long legs, and long taper tail. They often leaped into the water and brought up trouts, which they gave to their young which were sitting with them. On his appearing, they all took to the water, and swam a little way from shore, kept their heads out of the water, and looked at him. An old *Furrier* said, that he remembered the skin of one sold for five guineas; and that the *French* often see them in *Hare Bay*.

Siya & Cariguibeiu. *Marcgrave Brasil*,
234. *Des Marchais*, iii. 306.

Lutra Brasiliensis. Raii syn. quad. 189.
Briffon quad. 202.

227. BRASILIAN.

O with a round head like that of a cat : teeth feline : eyes small, round, and black : large whiskers : ears round : feet in form of those of a monkey, with five toes ; the inner the shortest : claws sharp : tail reaching no lower than the feet ; flat and naked *.

Hair soft, and not long ; entirely black, excepting the head, which is dusky ; and the throat, which is yellow.

Bulk of a middling dog. If the same with the otters of *Guiana*, mentioned by *M. de Buffon*, it weighs from forty to a hundred pounds †.

SIZE.

Inhabits *Brasil*, *Guiana*, and the borders of the *Oronoko*, provided the *Guachi* of *Gumilla* be the same ‡. *Marcgrave* says that it is an amphibious animal ; lives on fish, and crustaceous animals, such as cray-fish ; and is very dextrous in robbing the nets and weels of what it finds in them : makes a noise like a young puppy. The

PLACE.

* *Barrere Fr. Æquin.* 155.

† *Suppl.* iii. 158, 159.

‡ *Hist. de l'Orenoque*, iii. 239. *Gumilla* calls them also *Loups ou Chiens d'eau*, and says they are as large as a setting-dog. There is a great disagreement in the form of the feet, with others of the Otter kind. The writers who have had opportunity of examining it, are silent about the webs, the character of the genus. Till that point is settled, I must remain doubtful whether it be the *Saricovienne* of *Andrew Thevet*, as *M. de Buffon* conjectures. The size of the latter is another objection, which will apologize for my making a separate article of that animal till this point is settled.

flesh is reckoned delicate eating, and does not taste fishy, notwithstanding its food.

If this is the *Guachi*, as probably it is, it burrows on the banks of rivers, and lives in society: are extremely cleanly, and carry to a distance the bones and reliques of the fish they have been eating. They go in troops; are very fierce, and make a strong defence against the dogs; but if taken young are soon tamed.

228. LESSER.

Noerza. *Agricola An. Subter.* 485. *Gesner quad.* 768.Latax; Germ. Nurtz. *nobis* Nurek. *Rzacinski Polon.* 218.

Mustela Lutreola. M. plantis palmatis,

hirsutis ore albo. *Lin. syst.* 66. *Fennis, Tichurt; Suecis, Mænk. Faun. suec.* N^o 13.Norka. *Ritchkoff orenb. Topogr.* i. 295. *Schreber, cxxvi.*

O. with roundish ears: white chin: top of the head hoary; in some tawny: body tawny and dusky; the short hairs being yellowish; the long hairs black: the feet broad, webbed, and covered with hair: tail dusky, and ends in a point: of the form of an otter, but thrice as small.

PLACE.

Inhabits *Poland*, and the north of *Europe*; and is found on the banks of all the rivers in the country north of the *Taik*. None are found beyond the lake *Baikal*, or in the north-east parts of *Siberia*. Lives on fish, frogs, and water-insects: its fur very valuable; next in beauty to that of the sable. Caught in *Bashkiria* with dogs and traps: is most excessively foetid.

The *Minx* of *North America* is the same animal with this. The late worthy Mr. *Peter Collinson* * favored me with the following account

* By letter dated June 14, 1764. *Lawson* also gives some account of it, p. 122, *Hist. Carolina*: He says it is a great enemy to the Tortoises; whose eggs

XXXVIII.

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LESSER OTTER. N^o. 228.

account he received from Mr. *John Bartram*, of *Pensylvania*:
 ‘ The *Minx*,’ (says he) ‘ frequents the water like the Otter, and
 ‘ very much resembles it in shape and color, but is less; will
 ‘ abide longer under water than the musk quash, musk rat, or
 ‘ little beaver: yet it will leave its watery haunts to come and
 ‘ rob our hen-roosts; bites off their heads and sucks their blood:
 ‘ when vexed, it has a strong loathsome smell; so may be called
 ‘ the *Water Pole Cat*: its length, from nose to tail, twenty inches;
 ‘ the tail four: is of a fine shining dark brown color.’

From the conformity between the names this animal goes by, in *America* and *Sweden* (*Minx* and *Mænk*) it seems as if some *Swedish* colonist, who had seen it in his own country, first bestowed the name it now goes by, a little changed from the original: the skins are often brought over to *England*.

O of the size of a cat, with a fur fine as velvet, grey and black: web footed.

229. SARICO-
VIENNE.

Lives more in the water than on land: the flesh very delicate, and good to eat.

This appears to me to be the very same with *La petite Loutre*

it scrapes out of the sand and devours: eats fresh-water muscles, whose shells are found in great abundance at the mouth of their holes, high up in the rivers, in whose banks they live: may be made domestic: is a great destroyer of rats and mice. *La Hontan*, i. 232, seems to mean the same animal, by his *Foutereaux*, an amphibious sort of little Pole-cats.

d'eau douce de Cayenne, described and figured by M. de Buffon *, probably from a young animal.

SIZE.

The body, says he, is seven inches (*French*) in length: the tail six inches and seven lines; slender, taper, tuberculated, convex above, flat beneath: ears rounded, and longer than usual with otters: head, cheeks, and back, dusky; and the sides marked regularly with the same colors, issuing from the back, extending almost to the belly; the spaces between of a yellowish grey: above each eye is a white spot: the throat, and whole under side of the body, of the same color: the toes before are divided; those behind webbed.

M. de la Borde, as quoted by M. de Buffon, mentions another species of Otter frequent in the rivers of *Guiana*, weighing from twenty to twenty-five pounds, and of a yellowish color.

230. SEA.

Mustela Lutris. M. plantis palmatis pilosis, cauda corpore quadruplo brevior. *Lin. syst.* 66. *Schreber*, cxxviii. *Lutra marina*, Kalan. *Nov. Com. Pe-*

trop. ii. 367. *tab.* xvi.
Sea Otter. *Hist. Kamtschatka*, 122.
Muller's voy. 57, 58.

O. with a black nose: upper jaw longer and broader than the lower: long white whiskers: irides hazel: ears small, erect, conic: in the upper jaw are six cutting teeth; in the lower four: the grinders broad, adapted for breaking and comminuting crustaceous animals, and shell-fish: skin thick: hair thick and long, excessively black and glossy: beneath that a soft down: color sometimes varies to silvery: legs thick and short:

* *Suppl.* iii. 159. *tab.* xxii.

toes covered with hair, and joined by a web: the hind feet exactly like those of a seal, and have a membrane skirting the outside of the exterior toe, like that of a goose. Length from nose to tail about three feet: the tail thirteen inches and a half; flat, fullest of hair in the middle; sharp-pointed. The biggest of these animals weigh seventy or eighty pounds,

SIZE.

Inhabits, in vast abundance, *Bering's* island, the *Aleutian* and the *Fox islands* between *Asia* and *America*.

PLACE.

Are most harmless animals: most affectionate to their young; will pine to death at the loss of them, and die on the very spot where they have been taken from them: before the young can swim, they carry them in their paws, lying in the water on their backs: run very swiftly; swim often on their back, their sides, and even in a perpendicular posture: are very sportive; embrace each other, and even kiss: inhabit the shallows, or such which abound with sea-weeds: feed on lobsters, fish, *Sepiæ*, and shell-fish: breed once a year; bring but one young at a time; suckle it a year, bring it on shore: are dull sighted, but quick scented: hunted for their skins, which are of great value; sold to the *Chinese* for seventy or a hundred *rubels* apiece: each skin weighs three pounds and a half. The young are reckoned very delicate meat, scarcely to be distinguished from a sucking lamb.

MANNERS.

DIV. II. SECT. III.

DIGITATED QUADRUPEDS.

Without canine teeth; and with two cutting teeth in each jaw.

Generally herbivorous, or frugivorous.

DIV. II. SECT. III. Digitated Quadrupeds.

XXV. CAVY.

Two cutting teeth in each jaw.

Generally four toes on the fore feet, three behind.

Short ears: no tail, or a very short one.

Pace creeping; and slow: numerous breeders: short-lived.

231. CAPIBARA.

Caby-bara. *Marcgrave Brasil*, 230. *Piso Brasil*, 99. *Raii syn. quad.* 126.

River Hog. *Waser in Dampier*, iii. 400.

Cochon d'Eau. *Des Marchais*, iii. 314.

Sus maximus palustris. Cabiai, cabionora. *Barrere France Æquin.* 160.

Capivard. *Froger's voy.* 99.

Sus hydrochæris. *S. plantis tridactylis cauda nulla*. *Lin. syst.* 103.

Hydrochærus, Le Cabiai. *Briffon quad.* 80. *De Buffon*, xii. 384. *tab. xlix.*

Irabubos. *Gumilla Orenoque*, iii. 238.

C. with a very large and thick head and nose: small rounded ears: large black eyes: upper jaw longer than the lower: two strong and great cutting teeth in each jaw: eight grinders in each jaw; and each of those grinders form on their surface seemingly three teeth, each flat at their ends*: legs short: toes long, connected near their bottoms by a small web; their ends guarded by a small hoof: no tail: hair on the body short, rough, and

* *M. de Buffon* denies this: his description was taken from a young subject; but *Marcgrave* and *Des Marchais*, who had opportunities of examining these animals in their native country, agree in this singular construction of the teeth.

brown ; on the nose, long and hard whiskers : grows to the size of a hog of two years old.

Inhabits the country from the Isthmus of *Darien* to the *Brasils*, and even to *Paraguay* ; lives in the fenny parts, not remote from the banks of great rivers, such as the *Oronoque*, *Amazons*, and *Rio de la Plata* : runs slowly : swims and dives remarkably well, and keeps for a long time under water : feeds on fruits and vegetables : is very dextrous in catching fish, which it brings on shore, and eats at its ease : it sits up, and holds its prey with its fore feet, feeding like an ape : feeds in the night, and commits great ravages in gardens : keeps in large herds, and makes an horrible noise like the braying of an ass : grows very fat : the flesh is eaten, is tender, but has an oily and fishy taste : is easily made tame *, and soon grows very familiar.

PLACE.

Cuniculus vel Porcellus Indicus. *Gesner*
quad. 367.

Cavia Cobaya. *Marcgrave Brasil*, 224.
Piso Brasil, 102.

Mus seu cuniculus *Americanus* et *Guineensis*, Porcelli pilis et voce, Cavia
Cobaya. *Raii syn. quad.* 223.

Cavia Cobaya *Brasil*, quibusdam mus
Pharaonis. Tatu pilosus. *Klein*

quad. 49.

Mus porcellus. M. cauda nulla, palmis
tetradactylis, plantis tridactylis. *Lin.*
syst. 79. *Amæn. Acad.* iv. 190. *tab.* ii.

Cuniculus ecaudatus, auritus albus,
aut rufus, aut ex utroque variegatus.
Briffon quad. 102.

Le Cochon d'Inde. *De Buffon*, viii. 1.
tab. i. *LEV. Mus.*

232. RESTLESS.

C. with the upper lip half divided : ears very large, broad, and rounded at the sides : hair erect, not unlike that of a young pig : color white, or white varied with orange and black, in irregular blotches : no tail : four toes on the fore feet ; three on the hind.

* *Muratori hist. Paraguay*, 258.

3 A

Inhabits

PLACE.

Inhabits *Brasil*: no mention made by writers of its manners in a wild state: domesticated in *Europe*: a restless, grunting, little animal; perpetually running from corner to corner: feeds on bread, grains, and vegetables: breeds when two months old: brings from four to twelve at a time; and breeds every two months: would be innumerable, but numbers of the young are eaten by cats, others killed by the males: are very tender, multitudes of young and old perishing with cold: are called in *England*, *Guinea Pigs*, being supposed to come from that country. Rats are said to avoid their haunts.

233. ROCK.

Aperea. *Brasilienfibus*, nobis veldratte, vel Boschratte. *Marcgrave Brasil*, 223. *Piso Brasil*, 103. *Raii syn. quad.* 206.

Cavia Aperea. *Klein quad.* 50.

Cuniculus ecaudatus auritus, ex cinereo rufus. *Briffon quad.* 103. L'Aperea. *De Buffon*, xv. 160. LEV. Mus.

SIZE.

PLACE.

C. with divided upper lip: short ears: four toes on the fore feet; three on the hind: no tail: color of the upper part of the body black, mottled with tawny: throat and belly white: length one foot.

Inhabits *Brasil*: lives in the holes of rocks: is driven out, and taken by little dogs: is superior in goodness to our rabbits: its paces like those of a hare.



Patagonian Cavy N° 234

Narborough's voy. 33. LEV. MUS.

234. PATAGONIAN.

C. with long ears, much dilated near the bottom: upper lip divided: on each side of the nose tufts of soft hairs, and long whiskers: tip of the nose black: face, back, and fore part of the legs, cinereous and rust-colored: breast and sides tawny: belly of a dirty white: on each thigh a white patch: rump black: legs very long: claws long, strait, and black; four on the fore feet; three on the hind: tail a mere naked stump.

This animal is found of the weight of six-and-twenty pounds*.

Is found in plenty about *Port Desire*, in *Patagonia*: lives in holes of the earth, like the rabbit: the flesh of a snowy whiteness, and excellent flavor†.

Sir *John Narborough*, and other voyagers, call it a hare.

Paca. Martgrave Brasil, 224. Piso Brasil, 101. De Laet, 484.

Mus Brasiliensis magnus, porcelli pilis et voce, Paca dictus. Raii syn. quad. 226.

Cavia Paca. Klein quad. 50.

Cuniculus major, palustris, fasciis albis notatus. Paca Martgrave. Barrere France Equin. 152.

Mus Paca. M. cauda abbreviata, pedi-

bus pentadactylis, lateribus flavescenti-lineatis. Lin. syst. 81.

Cuniculus caudatus, auritus, pilis obscure fulvis, rigidis, lineis ex albo flavescens ad latera distinctis. Brisson quad. 99.

Le Paca. De Buffon, x. 269. tab. xliii. Supplem. iii. 203. tab. xliii. LEV. Mus.

235. SPOTTED.

C. with the upper jaw longer than the lower: nostrils large: whiskers long: ears short and naked: neck thick: hairs short and hard: color of the upper part of the body dark

* *Byron's voy.* 18.

† The same, 19.

brown; the lower part, or sides, marked lengthways with lines of grey spots: the belly white; in some, perhaps young ones, the sides and spots are of a pale yellow: five toes on each foot: only the meer rudiment of a tail: length about ten inches: is made like a pig, and in some parts is called the *Hog-Rabbit* *.

Inhabits *Brasil*, and *Guiana*: lives in fenny places: burrows under ground: grows very fat: is esteemed in *Brasil* a great delicacy: grunts like a pig: eats its meat on the ground, not sitting up, as some others of this genus do: are discovered by little dogs, who point out the places they lie in: the master digs over them, and when he comes near transfixes them with a knife; otherwise they are apt to escape: will bite dreadfully. There is a variety quite white, found on the banks of the river *St. Francis* †.

236. LONG-NOSE.

Aguti vel Acuti. *Martgrave Brasil*, 224. *Piso Brasil*, 102.

Acuti ou Agoutis. *De Laet*, 484. *Rochefort Antillei*, i. 287.

Mus sylvestris Americanus cuniculi magnitudine, pilis et voce *Porcelli*, Aguti. *Raii syn. quad.* 226.

Cavia Aguti. *M. cauda abbreviata*, palmis *tetradactylis*, plantis, *tridactylis*, abdomine *flavescente*. *Lin. syst.* 80.

Cuniculus caudatus, auribus, pilis ex rufo et fusco mixtis, rigidis vestitus. *Briffon quad.* 98.

L'Agouti. *De Buffon*, viii. 375. *tab.* 1.

Small Indian Coney. *Brown's Jamaica*, 484.

Long-nosed Rabbit. *Wafer's voy. in Dampier*, iii. 401.

Cuniculus omnium vulgatissimus, Aguti vulgo. *Barrere France Equin.* 153 †.

C. with a long nose: divided upper lip: short rounded ears: black eyes: hair hard and shining; on the body mixed

* *Wafer's voy. in Dampier*, iii. 401.

† *De Laet*, 484.

† The animal described by *Seba* under the name of *Cuniculus Americanus*, i. 67. *tab.* xli. seems the same with this, notwithstanding he says, that the hind feet are *tetradactylous*.

with red, brown, and black; on the rump, of a bright orange-color: belly yellow: legs almost naked, slender, and black: four toes on the fore feet; three on the hind: tail short, and naked: size of a rabbit.

Inhabits *Brasil, Guiana, &c.* Grunts like a pig: is very voracious: sits on its hind legs, and holds its food with the fore feet when it eats: hides what it cannot consume: hops like a hare: goes very fast: when pursued, takes shelter in hollow trees: is capable of being tamed: when angry, sets up the hair on its back, and strikes the ground with its feet: is eaten by the inhabitants of *South America*.

Cuniculus minor caudatus, olivaceus, L'Akouchy. *De Buffon*, xv. 258. *Suppl.* 237. OLIVE.
Akouchy. *Barrere France Equin.* iii. 211. *tab.* xxxvi.
153. *Des Marchais*, iii. 303.

A Species of *Aguti*, less than the former, and of an olive-color: which is the whole account left us by M. *Barrere*. *Des Marchais* says, it is more delicate food than the other.

Inhabits *Guiana*, and the islands of *St. Lucia* and *Grenada*: inhabits the woods: lives on fruits: is excellent meat: its flesh is white: easily made tame: makes a cry (but very rarely) like the *restless cavy*: abhors water.

Java

238. JAVAN.

Java hare. *Catesby Carolina, App. tab.*
xviii.Cavia Javenfis. *Klein quad. 50.*

Cuniculus caudatus auritus, rufesco ad-

mixto. *Briffon quad. 98.*Mus leporinus. *Lin. syst. 80.*Cuniculus Americanus. *Seb. Mus. 1.*
67. tab. xlii. fig. 2.

C. with a slender small head : prominent naked ears, rounded at the tops : hairs very stiff like bristles, especially on the back : color of the upper part of the body reddish : breast and belly white : legs long : hind parts large : four toes on the fore feet ; three on the hind : tail short : size of a hare.

Inhabits *Surinam* and the hotter parts of *South America*, where it is a common food : the flesh is white, but dry. It is not found in *Java* or *Sumatra*, as *Catesby* asserts. Governor *Loten* assures me, that he made the most diligent enquiry after it in most parts of *Java*, but could never find the least traces of any such animal.

239. CAPE.

Cavia capensis. *Pallas Miscel. Zool. 30.*
*tab. ii. Spicil. 16. tab. ii.*Africaansch basterd-mormeldier. *Vos-**maer Monogr. De Buffon, Supplém. iii.*
177. tab. xxix.

C. with a thick head, and full cheeks : ears oval, half hid in the fur : head of the color of a hare : along the top of the back dusky, mixed with grey : sides and belly of a whitish grey : four toes on the fore feet, three behind : tail scarce visible : size of a rabbit, but the shape of the body thick and clumsy.

Inhabits in great abundance the rocky mountains near the *Cape*

of Good Hope, where it is called *Kaapsche Dafs*, *Klip Dafs* *, or *Cape Badger* : burrows under ground : has a slow creeping pace ; a sharp voice, often repeated : is esteemed very good meat.

Le Rats musqués, Piloris. Rochefort
Antilles, i. 288. Du Tertre hist. An-

tilles, ii. 302. De Buffon, x. 2.

240. Muske

C. of a black or tan-color on the upper part of its body : white on the belly : tail very short † : almost as big as a rabbit.

Inhabits *Martinico* and the rest of the *Antilles* : burrows like a rabbit : smells so strong of musk, that its retreat may be traced by the perfume : an obscure species, never examined by a naturalist.

* Kolben, Dutch edition, as quoted by Dr. Pallas. La Caille mentions this species under the name of *Marmot*.

† *Nouv. voy. aux isles de l'Amerique*, i. 438.

XXVI.
H A R E.

Two cutting teeth in each jaw.

Short tail : or none.

Five toes before ; four behind.

241. COMMON.

Lepus. Plinii, lib. viii. c. 55. Gesner
*quad. 605. Raii syn. quad. 204.**Hase, Klein quad. 51.**Lepus timidus. L. cauda abbreviata*
*auriculis apice nigris ? Lin. syst. 77.**Hase, Faun. suet. No. 25.**Lepus caudatus ex cinereo rufus. Bris-**son quad. 94.**Le Lievre, De Buffon, vi. 246. tab.*
*xxxviii. Br. Zool. i. 87.**Arnæb. Forskal. iv. Lev. Mus. in*
which are several curious varieties of
colored hares.

H. with ears tipt with black : eyes very large and prominent :
chin white : long white whiskers : hair on the face, back,
and sides, white at the bottom, black in the middle, and tipt with
tawny red : throat and breast red : belly white : tail black above,
white beneath : feet covered with hair even at the bottom : a
large hare weighs eight pounds and a half. I am informed, that
in the *Isle of Man* some have been known to weigh twelve : its
length, from the nose to the tail, two feet.

Inhabits all parts of *Europe*, most parts of *Asia*, *Japan**,
Ægypt†, and *Barbary*‡ : a watchful, timid animal : always
lean : swifter in running up hill than on even ground : when
started, immediately endeavours to run up hill : escapes the
hounds by various artful doubles : lies the whole day on its feat :
feeds by night : returns to its form by the same road that it had

* *Kämpfer Japan, i. 126. Knox Ceylon, 20.*† *Prosp. Alp. i. 232.*‡ *Shaw's Travels, 249.*

taken

taken in leaving it : does not pair : the rutting-season is in *February* or *March*, when the male pursues the female by the sagacity of its nose : breeds often in the year ; brings three or four at a time : are very subject to fleas : the *Dalecarlians* make a cloth of the fur, which preserves the wearer from their attacks : the fur is of great use in the hat manufacture : feeds on vegetables : fond of the bark of young trees : a great lover of birch, parfly and pinks : was a forbidden food among the *Britons* : the *Romans*, on the contrary, held it in great esteem.

Inter quadrupedes gloria prima lepus,

was the opinion of *Martial* ; and *Horace*, who was likewise a *Bon vivant*, says, that every man of taste must prefer the wing

Fœcundi leporis sapiens sectabitur armos.

There have been several instances of what may be called monsters in this species, *horned hares*, excrescences growing out of their heads, likest to the horns of the roe-buck. Such are those figured in *Gesner's* history of quadrupeds, p. 634 ; in the *Museum Regium HAFNIÆ*, No. 48. tab. iv ; and in *Klein's* history of quadrupeds, 32. tab. iii ; and again described in *Wormius's Museum*, p. 321, and in *Grew's Museum* of the Royal Society. These instances have occurred in *Saxony*, and I think in *Denmark*, to which may be added another near *Astracan* *.

HORNED HARES.

A farther account of two straw-colored animals like dogs, which run like hares, and were of the same size, seen by the late navigators in *New Holland* †, will, I fear, be a long *desideratum* among naturalists.

* *Pallas.*

† *Cook's voy.* iii. 565.

242. VARYING. *Lepus hieme albus.* Forster *hist. nat.* xlvii. & *syn. quad.* N° 184.
VOLGÆ. Pb. Transf. lvii. 343. *Lepus variabilis.* Pallas. *nov. sp.* i.
 Alpine hare. *Br. Zool. illustr.* 40. tab. LEV. Mus.

H. with soft hair, in summer grey, with a slight mixture of black and tawny: with shorter ears, and more slender legs, than the common hare: tail entirely white, even in summer: the feet most closely and warmly furred. In winter, the whole animal changes to a snowy whiteness, except the tips and edges of the ears, which remain black, as are the soles of the feet, on which, in *Siberia*, the fur is doubly thick, and yellow. Less than the common species.

PLACE.

Inhabits the highest *Scottish Alps*, *Norway*, *Lapland*, *Russia*, *Siberia* *, *Kamtschatka*, and the banks of the *Volga*, and *Hudson's Bay*. In *Scotland*, keeps on the tops of the highest hills; never descends into the vales; never mixes with the common hare, which is common in its neighborhood: does not run fast: apt to take shelter in clefts of rocks: is easily tamed: full of frolic: fond of honey and carraway comfits: eats its own dung before a storm: changes its color in *September*: resumes its grey coat in *April*: in the extreme cold of *Greenland* only, is always † white. Both kinds of hares are common in *Siberia*, on the banks of the *Volga*, and in the *Orenburg* government. The one never changes color: the other, native of the same place, con-

* Vide *Pontop. Norway*, ii. 9. *Scheffer Lapland*, 137. *Strahlenberg Russia*, 370. *Ritchkoff Orenberg Topog.* i. 287.

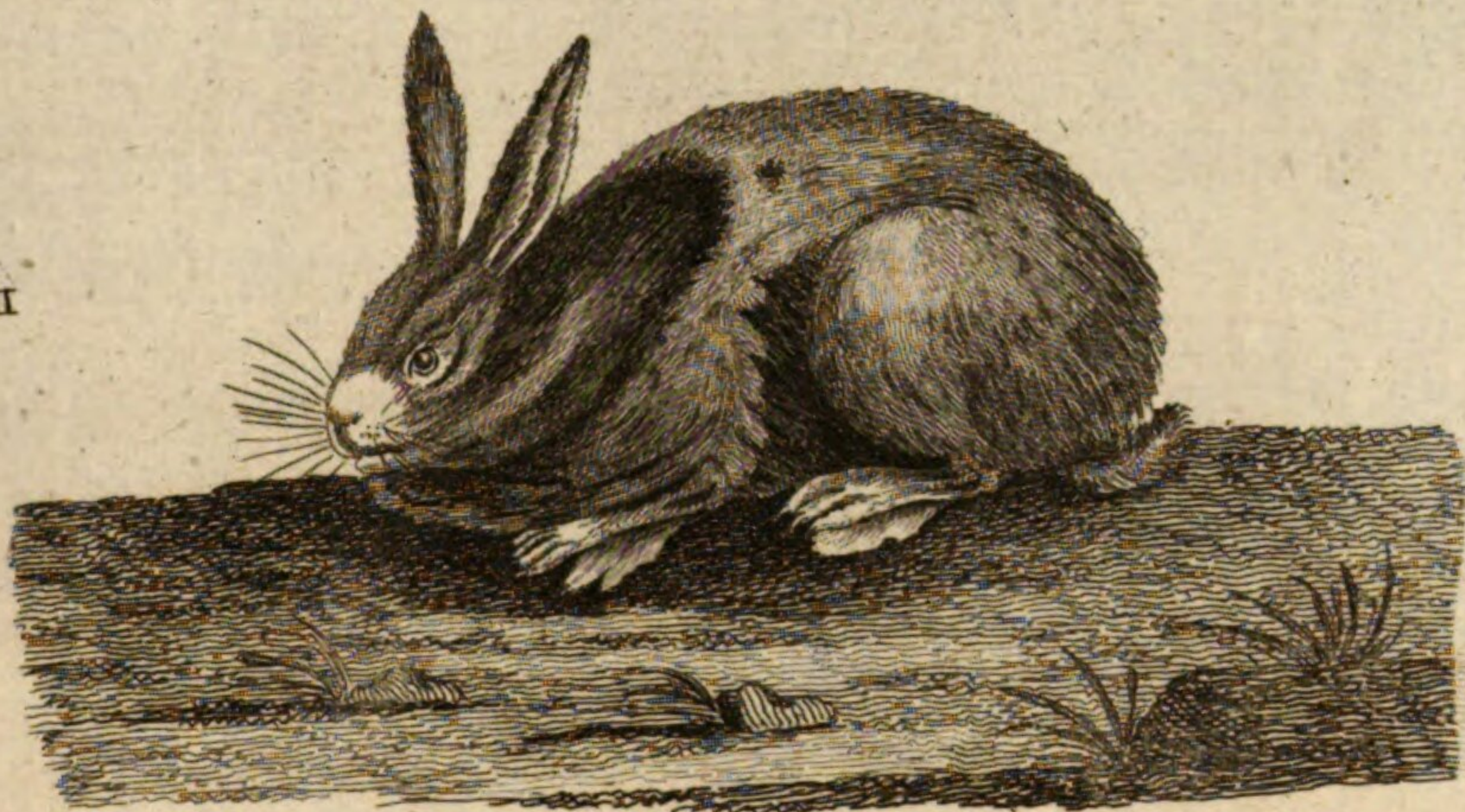
† *Egede, Greenl.* 62. *Crantz Greenl.* i. 70.

stantly

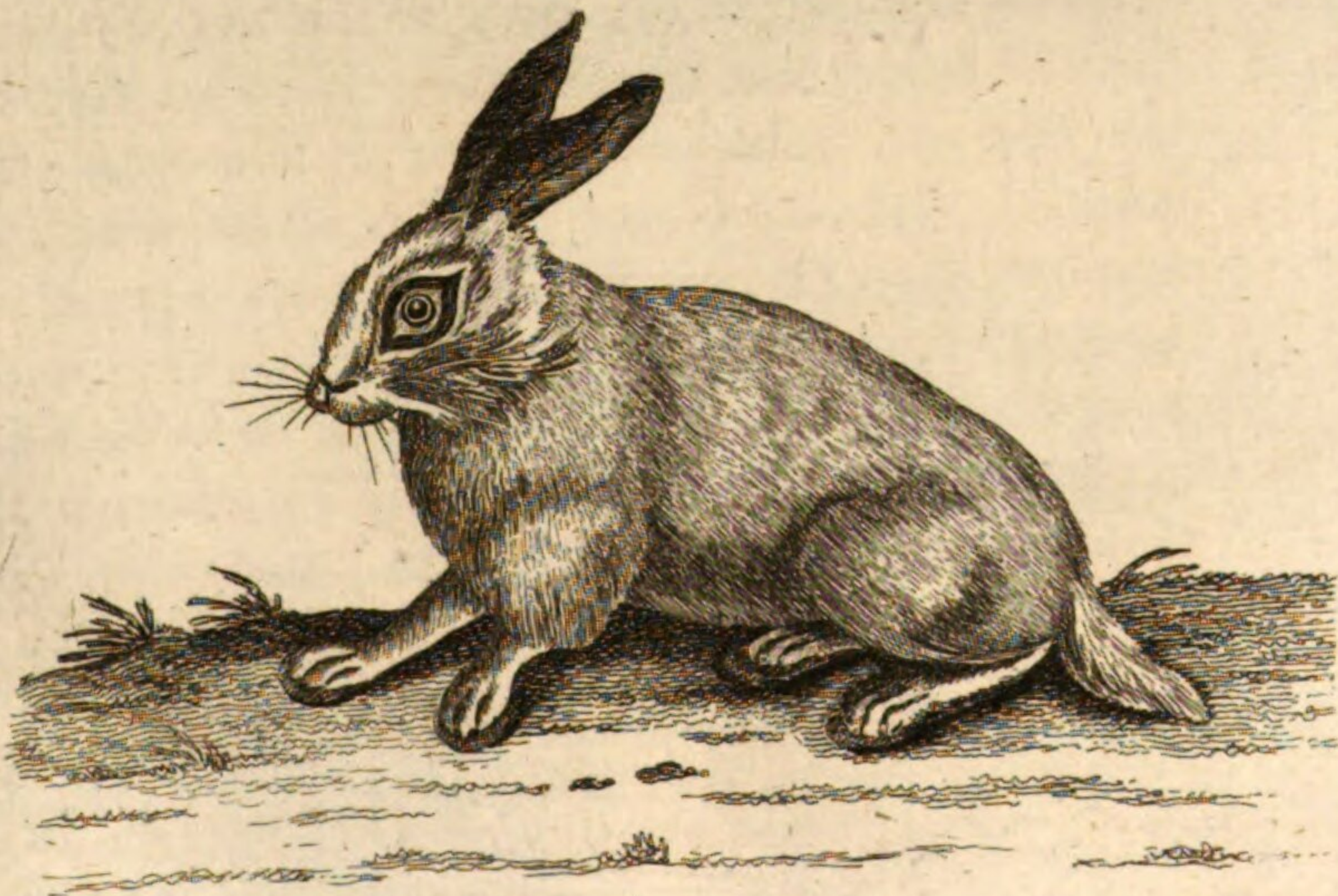
XL.

P.370

II



I



I. VARYING HARE N^o.242. II. HOODED RABBIT P.374

stantly assumes the whiteness of the snow during winter. This it does, not only in the open air, and in a state of liberty; but, as experiment has proved, even when kept tame, and preserved in houses in the stove-warmed apartments; in which it experiences the same changes of colors as if it had dwelt on the snowy plains *.

They collect together, and are seen in troops of five or six hundred, migrating in spring, and returning in autumn †. They are compelled to this by the want of subsistence, quitting in the winter the lofty hills, the southern boundaries of *Siberia*, and seek the plains and northern wooded parts, where vegetables abound; and towards spring seek again the mountainous quarters ‡. Mr. *Muller* says, he once saw two black hares, in *Siberia*, of a wonderful fine gloss, and of as full a black as jet. Near *Casan* was taken another, in the middle of the winter 1768. These specimens were much larger than the common kind.

MIGRATIONS.

BLACK HARES.

In the southern and western provinces of *Russia* is a mixed breed of hares, between this and the common species. It sustains, during winter only, a partial loss of color: the sides, and more exposed parts of the ears and legs, in that season, become white; the other parts retain their colors. This variety is unknown beyond the *Urallian* chain. It is called by the *Russians*, *Russak*; they take them in great numbers in snares, and export their skins to *England* and other places, for the manufacture of hats ||. The *Russians* and *Tartars*, like the *Britons* of old, hold

α. SPURIOUS.

* *Pallas* nov. sp. fasc. i. p. 7.
nov. sp. fasc. i. p. 15.

† *Bell's Travels*, i. 238.

‡ *Pallas*

|| The same, p. 6.

the flesh of hares in detestation, esteeming it impure : that of the VARIABLE, in its white state, is excessively insipid.

243. AMERICAN.

Hare, hedge Coney. *Lawson*, 122. *Catesby*, App. xxviii.

H. with the ears tipt with grey : upper part of the tail black ; lower white : neck and body mixed with cinereous, rust-color, and black : legs of a pale ferruginous : belly white : fore legs shorter, hind legs longer, in proportion, than those of the common hare.

Length eighteen inches : weighs from three to four pounds and a half.

Inhabits all parts of *North America*. In *New Jersey*, and the colonies south of that province, it retains its color the whole year. In *New England* *, *Canada*, and about *Hudson's Bay*, at approach of winter, it changes its short summer's fur for one very long, silky, and silvery, even to the roots of the hairs ; the edges of the ears only preserving their color : at that time it is in the highest season for the table † ; and is of vast use to those who winter in *Hudson's Bay*, where they are taken in vast abundance, in springes made of brass wire, to which the animals are led by a hedge made for that purpose, with holes left before the snares for the rabbits to pass through.

They breed once or twice a year, and have from five to seven at a time : they do not migrate, like the preceding, but always haunt the same places : they do not burrow, but lodge under

* *Josslyn's Rarities*, 22.

† *Clerk Californ.* i. 156.

fallen timber, and in hollow trees : they breed in the grass ; but in spring shelter their young in the trees, to which they also run when pursued ; from which, in the southern colonies, the hunters * force them by means of a hooked stick, or by making a fire, and driving them out by the smoke. I have had an opportunity of examining this species in its brown dress from *Pensylvania*, and its winter's dress from *Hudson's Bay*.

Cuniculus. *Plinii, lib. viii. c. 55. Gesner quad. 362. Agricola An. Subt.*

482.

Rabbet, or Coney. *Raii syn. quad. 205.*

Lepusculus, cuniculus terram fodiens,

Kaninchen. *Klein quad. 52.*

Lepus cuniculus. L. cauda abbreviata,

auriculis nudis. *Lin. syst. 77.*

Kanin. *Faun. suec. No. 26. Br. Zool. i.*

90.

Lepus caudatus, obscuré cinereus. *Bris-*

son quad. 95.

Le Lapin. *De Buffon, vi. 303. tab. 1.*

li. *LEV. Mus.*

244. RABBIT.

H. with ears almost naked : color of the fur, in a wild state, brown ; tail black above, white beneath : in a tame state, varies to black, pied, and quite white : the eyes of the last of a fine red.

Inhabits, in a wild state, the temperate and hot parts of *Europe*, and the hottest parts of *Asia* and *Africa* : not originally *British* ; but succeeds here admirably : will not live in *Sweden*, or the northern countries, except in houses. *Strabo* † tells us, that they were first imported into *Italy* from *Spain*. Not natives of *America* ; but encrease greatly in *S. America*.

Most prolific animals : breed seven times in a year : produce eight young at a time : supposing that to happen regularly, one

* *Kalm, ii. 45.*

† *Lib. iii.*

pair may bring in four years 1,274,840. In warrens, keep in their holes in the middle of the day; come out morning and night: the males apt to destroy the young: the skins a great article of commerce; numbers exported to *China*: the fur of great use in the hat-manufacture.

β. ANGORA RABBIT. With hair long, waved, and of a silky fineness, like that of the goat of *Angora*, p. 55, and the *Cat*, p. 275.

γ. HOODED RABBIT. With a double skin over the back, into which it can withdraw its head: another under the throat, in which it can place its fore feet: has small holes in the loose skin on the back, to admit light to the eyes: color of the body cinereous: head and ears brown.

Described from a drawing, and manuscript account, by Mr. G. Edwards, preserved in the *Museum*; inscribed "A Russian Rabbit;" but I find that it is unknown in that empire.

245. BAIKAL.

Cuniculus insigniter caudatus, coloris Lepus cauda in supina parte nigra in
Leporini. *Nov. Com. Petrop.* v. 357. prona alba. *Briffon quad.* 97.
tab. xi. Le Tolai. *De Buffon*, xv. 138.

H. with a tail longer than that of a rabbit: ears longer in the male, in proportion, than those of the *varying* hare: fur of the color of the common hare: red about the neck and feet:

tail black above, white beneath : size between that of the common and the *varying* hare.

Inhabits the country beyond lake *Baikal*, and extends through the great *Gobèe*, even to *Thibet*. The *Tanguts* call it *Rangwa*, and consecrate it among the spots of the moon* : agrees with the common rabbit in color of the flesh ; but does not burrow, running instantly (without taking a ring as the common hare does) for shelter, when pursued, into holes of rocks ; so agrees in nature with neither that nor the rabbit. Called by the *Mongols*, *Tolai*. The fur is bad, and of no use in commerce.

Lepus Capensis. L. cauda longitudinis capitis, pedibus rubris. *Lin. syst.* 78.

246. CAPE.

H. with long ears dilated in the middle : the outsides naked, and of a rose-color : inside and edges covered with short grey hairs : crown and back dusky, mixed with tawny : cheeks and sides cinereous : breast, belly, and legs, rust-colored : tail bushy, carried upwards ; of a pale ferruginous color.

Size of a rabbit.

Inhabits the country three days north of the *Cape of Good Hope*. Is called there the *Mountain Hare*, for it lives only in the rocky mountains ; does not burrow. It is difficult to shoot it, as it instantly, on the sight of any one, runs into the fissures of the rocks.

The same species probably extends as high as *Senegal*. *M. Adanson* (44) observes, that the hares of that country are not so large :

* *Pallas nov. sp.* i. 20.

as those of *France*; their color between that of the *European* kind and a rabbit; and their flesh white.

Allied to this seems the *Viscachos*, or *Viscachas*, mentioned by *Acosta* * and *Feuillée* †, in their accounts of *Peru*: they compare them to hares or rabbits. The last says, they inhabit the colder parts of the country. Their hair is very soft, and of a mouse-color: the tail pretty long, and turns up: the ears and whiskers like those of the common rabbit. In the time of the *Incas*, the hair was spun, and wove into cloth, which was so fine as to be used only by the nobility ‡.

* * Without a tail.

247. BRASILIAN. Tapeti. *Marcgrave Brasil*, 223. *Piso* *syst.* 78.
Brasil, 102. *Lepus ecaudatus. Brisson quad.* 97.
Cuniculus Brasiliensis Tapeti dictus. Le Tapeti. De Buffon, xv. 162.
Raii syn. quad. 205. Collar'd Rabbit. *Waser's voy. in Dam-*
Lepus Brasiliensis. L. cauda nulla. Lin. pier, iii. 401.

H. with very large ears, like the common kind: a white ring round the neck: face of a reddish color: chin white: black eyes: color of the body like the common hare, only darker: belly whitish: no tail: some want the white ring round the neck.

Inhabit *Brasil*: live in woods: do not burrow: are very prolific: very good meat: found also in *Mexico* ||, where they are called *Citli*.

* In *Purchas's Pilgrims*, iii. 966. † *Obs. Peru*, 1725. 32. ‡ *Garcilasso de la vega*, 331. || *Fernandez An. Nov. Hisp.* 2.

Lepus

Lepus Alpinus. Pallas, nov. sp. fasc. i. 52. tab. ii. Itin. ii. 701. tab. A. 248. ALPINE.
Zimmerman.

H. with short, broad, rounded ears: head long: very long whiskers: two very long hairs above each eye: color of the fur at the bottom dusky, towards the ends of a bright ferruginous; the tips white; intermixed are several long dusky hairs; but on first inspection the whole seems of a bright bay.

Length of that I saw was nine inches.

These animals are first seen on the *Altaic* chain, and extend to lake *Baikal*; and from thence to *Kamtschatka*; and, as is said, in the new-discovered *Fox* or *Aleutian* islands. They inhabit always the middle region of the snowy mountains, in the rudest places, wooded and abounding with herbs and moisture.

PLACE.

They sometimes form burrows between the rocks, and oftener lodge in the crevices; and are found in pairs, or more, according to conveniency: in cloudy weather they collect together, and lie on the rocks, and give a keen whistle, so like that of a sparrow, as to deceive the hearer. On the report of a gun, they run into their holes; but soon come out again, supposing it to be a clap of thunder, to which they are so much used in their lofty habitations.

VOICE.

By wonderful instinct they make a provision against the rigorous season in their inclement seats. A company of them, towards autumn, collect together vast heaps of choice herbs and grasses, nicely dried, which they place either beneath the overhanging rocks, or between the chasms, or round the trunk of some tree. The way to these heaps is marked by a worn path. In

many places the herbs appeared scattered, as if to be dried in the sun and harvested properly. The heaps are formed like round or conoid ricks; and are of various sizes, according to the number of the society employed in forming them. They are sometimes of a man's height, and many feet in diameter, but usually about three feet.

Thus they wisely provide their winter's stock, otherwise they must perish, being prevented by the depth of snow to quit their retreats in quest of food.

They select the best of vegetables, and crop them when in the fullest vigor, which they make into the best and greenest hay by the judicious manner in which they dry it. These ricks are the origin of fertility amidst the rocks; for the reliques, mixed with the dung of the animals, rots in the barren chasms, and creates a soil productive of vegetables.

These ricks are also of great service to that branch of mankind who devote themselves to the laborious employ of sable-hunting: for being obliged to go far from home, their horses would often perish for want, if they had not the provision of these industrious little animals to support them; which is easily to be discovered by their height and form, even when covered with snow. It is for this reason that this little beast has a name among every *Siberian* and *Tartarian* nation, which otherwise would have been overlooked and despised. The people of *Jakutz* are said to feed both their horses and cattle with the reliques of the winter stock of these hares.

These animals are neglected as a food by mankind, but are the prey of *sables* and the *Siberian* weasel, which are joint inhabitants of the mountains. They are likewise greatly infested by a sort of

gadfly, which lodges its egg in their skin in *August* and *September*, which often proves destructive to them.

Lepus Ogotona. *Pallas* Nov. sp. fasc. i. 59. tab. iii.

249. OGOTONA.

H. with oblong oval ears, a little pointed: shorter whiskers than the former: hairs long and smooth: color of those on the body brown at the roots, light grey in the middle, white at the ends, intermixed with a very few dusky hairs: a yellowish spot on the nose: space about the rump of the same color: outside of the limbs yellowish: belly white.

Length about six inches: weight of a male, from six ounces and a half to seven and a quarter; of the female, from four to four and three quarters.

Inhabits only the country beyond lake *Baikal*, and from thence common in all parts of the *Mongolian* desert, and the vast desert of *Gobèe*, which extends on the back of *China* and *Tibet*, even to *India*. It lives in the open vallies, and on gravelly or rocky naked mountains. These little creatures are called by the *Mongols*, *Ogotona*: are found in vast abundance: live under heaps of stones, or burrow in the sandy soil, leaving two or three entrances. Their holes run obliquely: in these they make a nest of soft grass. The old females make for security many of these burrows near each other, that they may, if disturbed, retreat from one to the other.

They wander out chiefly in the night. Their voice is excessively shrill, a note like that of a sparrow, twice or thrice repeated; but very easily to be distinguished from that of the *Alpine* hare.

They live in the vallies, principally on the tender bark of a sort of *Service*, and the dwarf elm; in the spring on different herbs. Before the approach of severe cold, in the early spring, they collect great quantities of herbs, and fill their holes with them, which the inhabitants of the country consider as a sure sign of change of weather.

Directed by the same instinct with the former, they form in autumn their ricks of hay of a hemispherical shape, about a foot high and wide: in the spring these elegant heaps disappear, and nothing but the reliques are seen.

They copulate in the spring, and about the latter end of *June* their young are observed to be full grown.

They are the prey of hawks, magpies, and owls: but the Cat *Manul* makes the greatest havock among them: and the ermine and fitchet is equally their enemy.

250. CALLING. *Lepus pusillus.* *Pallas* Nov. sp. i. 31. *tab.* i. Nov. Com. *Petrop.* xiii. 531. *tab.* xiv. *Zimmerman.*

H. with a head longer than usual with hares, and thickly covered with fur, even to the tip of the nose: numerous hairs in the whiskers: ears large and rounded: legs very short: soles furred beneath: its whole coat very soft, long, and smooth, with a thick long fine down beneath, of a brownish lead-color: the hairs of the same color; towards the ends of a light grey, and tipped with black: the lower part of the body hoary: the sides and ends of the fur yellowish.

Length

Length about six inches : weight from three ounces and a quarter to four and a half ; in winter scarcely two and a half.

SIZE.

Inhabits the south-east parts of *Russia*, and about all the ridge of hills spreading southward from the *Urallian* chain ; also about the *Irtish*, and in the west part of the *Altaic* chain ; but no where in the east beyond the *Oby*. They delight in the most sunny vallies, and herby hills, especially near the edges of woods, to which they run on any alarm.

PLACE.

They live so concealed a life as very rarely to be seen : but are often taken in winter, in the snares laid for the ermines ; so are well known to the hunters. About the *Volga* they are called *Sem-lanoi Saetshik*, or *Ground Hare* : the *Tartars*, from their voice, style them *Tschotschot* or *Ittsitskan*, or the *Barking Mouse* ; the *Kalmucs* call them *Rusla*.

MANNERS.

They chuse for their burrows a dry spot, amidst bushes covered with a firm sod, preferring the western sides of the hills ; in these they burrow, leaving a very small hole for the entrance ; and forming long galleries, in which they make their nests : but those of the old ones, and females, are numerous and intricate : their place would be scarcely known but for their excrements, and even those they drop, by a wise instinct, under some bush, lest their dwelling should be discovered by their enemies among the animal creation.

It is their voice alone that betrays their abode ; it is like the piping of a quail, but deeper, and so loud as to be heard at the distance of half a *German* mile. It is repeated by just intervals thrice, four times, and often six. This is wonderful, as this little animal does not appear to be particularly organized for the purpose. The voice is emitted at night and morning : seldom in the day,

VOICE.

YOUNG.

except in rainy and cloudy weather. It is common to both sexes; but the female is silent for some time after parturition, which is about the beginning of *May*, N. S. They bring forth six at a time, blind and naked; which she suckles often, and covers carefully with the materials of her nest.

These most harmless and inoffensive animals never go from their holes: feed and make their little excursions by night: drink often: sleep little: are easily made tame: will scarcely bite when handled. The males in confinement are observed to attack one another, and express their anger by a grunting noise.

Two cutting teeth in each jaw.

Five toes on each foot.

Tail compressed, and covered with scales.

XXVII. BEAVER.

Καστωρ. *Arist. hist. An. lib. viii. c. 5.*
Oppian. Halieut. i. 398.
 Fiber. *Plinii, lib. viii. c. 30. Agri-*
cola An. Subt. 482. Belon Aquat. 25.
 Castor. *Gesner quad. 309. Rondel. 236.*
Schoneveld, Ictb. 34.
 Beaver. *Raii syn. quad. 209.*
 Bobr. *Rzacinski Polon. 215.*
 Biber. *Klein quad. 91. Kramer Austr.*
 315.

Castor castanei coloris, cauda horizon-
 taliter plana. *Briffon quad. 90.*
 Castor Fiber. C. cauda ovata plana.
Lin. syst. 78.
 Bafwer, Biur. *Faun. suec. N° 27.*
 Le Castor, ou Le Bievre. *De Buffon,*
viii. 282. tab. xxxvi.
 Beaver. *Br. Zool. i. 70. tab. ii. Lev.*
 Mus.

251. CASTOR.

B. with strong cutting teeth: short ears, hid in the fur: blunt
 nose: hair of a deep chesnut brown: tail broad, almost
 oval, compressed horizontally, covered with scales: the fore feet
 small; the hind large: length, from nose to tail, about three feet:
 tail eleven inches long, three broad.

Inhabits *Europe*, from *Lapland* to *Languedoc**: in great plenty
 in the *North*: a few are yet found in the *Rhone*†, the *Gardon*, the
Danube, the *Rhine*, and the *Vistula*. I have an instance of two
 old and six young being taken in 1742, at *Gornichem*, in *Holland*;
 another in 1757 in the *Yffel*, in *Gelderland*; and another in 1770
 in the *Maas*, near the village *Hedel*, not far from *Bois le duc*: this
 last weighed forty pounds, and had two bags of *castoreum*, weigh-

PLACE.

* *De Buffon, viii. 286.*

† *Ibid.*

ing

ing four ounces, and of excellent quality. It had inhabited the river for some years, and done much damage to the willow-trees, with whose bark its stomach was found full. They are much more frequent in the *Lippe*, above *Wesel*, from which river they might descend into those of *Holland**.

Abound in the *Asiatic* part of the *Russian* empire: are found in companies, or associated, about the *Konda*, and other rivers which flow into the *Oby*. They are met with dispersed, or in the state of *Terriers*, in the wooded parts of independent *Tartary*, and in the chains of mountains which border upon *Siberia*. None are to be seen in *Kamtschatka*, by reason of the interruption of the woods beyond the river *Kowyma*; nor yet in the new-discovered islands west of that country: only in the isle of *Kadjak*, the nearest to *America*, some skins have been procured by the *Russians*, which probably were got by the natives from *America*, in whose northern parts they are found in prodigious abundance.

MANNERS.

The most industrious of animals: nothing equals the art with which they construct their dwellings. They chuse a level piece of ground, with a small rivulet running through it. This they form into a pond, by making a dam across; first, by driving into the ground stakes five or six feet long, placed in rows, wattling each row with pliant twigs, and filling the interstices with clay, ramming it down close. The side nearest to the water is sloped; the other perpendicular. The bottom is from ten to twelve feet thick; but the thickness gradually diminishes to the top, which is about two or three. The length of these dams is sometimes not less than a hundred feet.

* *Martine's Katechism. Natur. ii. 143.*

Their houses are made in the water collected by means of the dam, and are placed near the edge of the shore. They are built on piles; are either round or oval; but the tops are vaulted; so that their inside resembles an oven, the top a dome. The walls are two feet thick; made of earth, stones, and sticks, most artificially laid together; and the walls within as neatly plaistered as if with a trowel. In each house are two openings; one into the water, the other towards the land. The height of these houses above the water is eight feet. They often make two or three stories in each dwelling, for the convenience of change, in case of floods. Each house contains from two to thirty beavers; and the number of houses in each pond is from ten to twenty-five. Each beaver forms its bed of moss; and each family forms its magazine of winter provision, which consists of bark and boughs of trees. This they lodge under water, and fetch it into their apartments as their wants require. *Lawson* says they are fondest of the *sassafras*, ash, and sweet-gum. Their summer food is leaves, fruits, and sometimes crabs and craw-fish; but they are not fond of fish.

To effect these works, a community of two or three hundred assembles; each bears his share in the labor: some fall, by gnawing with their teeth, trees of great size, to form beams or piles; these are gnawed all round in as regular a manner as a cutter cuts in falling a tree, bringing the bottom of the wood to a point*: others roll the pieces along to the water; others dive, and with their feet scrape holes, in order to place them in; while others

* This will be best understood by inspecting the specimens in the LEVERIAN MUSEUM.

exert their efforts to rear them in their proper places : another party is employed in collecting twigs, to wattle the piles with ; a third, in collecting earth, stones, and clay ; a fourth is busied in beating and tempering the mortar ; others, in carrying it on their broad tails to proper places, and with the same instrument ram it between the piles, or plaister the inside of their houses. A certain number of smart strokes with their tail, is a signal given by the overseer, for repairing to such or such places, either for mending any defects, or at the approach of an enemy ; and the whole society attend to it with the utmost assiduity. Their time of building is early in the summer ; for in winter they never stir but to their magazines of provisions, and during that season are very fat. They breed once a year, and bring forth, the latter end of the winter, two or three young at a birth.

Besides these associated beavers, is another sort, which are called *Terriers* ; which either want industry or sagacity to form houses like the others. They burrow in the banks of rivers, making their holes beneath the freezing depth of the water, and work up for a great number of feet. These also form their winter stock of provision.

Beavers vary in their colors : the finest are black ; but the general color is a chestnut brown, more or less dark : some have been found, but very rarely, white ; others spotted : both varieties are preserved in the LEVERIAN MUSEUM. The skins are a prodigious article of trade ; being the foundation of the hat-manufactory. In 1763 were sold, in a single sale of the *Hudson's Bay Company*, 54,670 skins. They are distinguished by different names. *Coat Beaver* is what has been worn as coverlets by the *Indians*. *Parchment Beaver*, because the lower side resembles it.

Stage

Stage Beaver is the worst, and is that which the *Indians* kill out of season, on their stages or journies. The valuable drug *Castoreum* * is taken from the inguinal glands of these animals. The antients had a notion it was lodged in the testicles, and that the animal, when hard pressed, would bite them off, and leave them to its pursuers, as if conscious of what they wanted to destroy him for.

*Imitatus Castora, qui se
Eunuchum ipse facit, cupiens evadere damno
Testiculorum.* JUVENAL, xii. 34.

Just as the BEAVER, that wise thinking brute,
Who, when hard hunted on a close pursuit,
Bites off the parts, the cause of all the strife,
And leaves them as a ransom for his life. DRYDEN.

* The *Russian Castoreum* is so much better than the *American*, that we give two guineas a pound for that, and only 8s. 6d. for the last; the first being less waxy, and pulverises readier. Notwithstanding we take this drug from *Russia*, we export there vast numbers of Beaver skins. The flesh is reckoned good eating, being preserved, after the bones are taken out, by drying it in the smoke.

MS. hist. Hudson's Bay.

252. MUSK.

Musfascus. *Smith's Virginin*, 27.Musquash. *Josselyn's voy. New Eng-*
land, 86.Musk Rat. *Lawson Carolina*, 120.Castor Zibethicus. C. cauda longa com-
presso-lanceolata, pedibus fissis. *Lin.*
syft. 79.Castor cauda verticaliter plana, digitis
omnibus a se invicem separatis. *Bris-*
son quad. 93.L'Ondatra. *De Buffon*, x. i. tab. i.Rat Musquè. *Charlevoix Nouv. France*,
v. 157. *Lescarbot N. Fr.* 350. *LEVI*
Mus.

B. with a thick blunt nose: ears short, and almost hid in the fur: eyes large: toes on each foot separated; those behind fringed on each side with strong hairs, closely set together: tail compressed sideways, and very thin at the edges, covered with small scales, intermixed with a few hairs: color of the head and body a reddish brown: breast and belly ash-color, tinged with red: the fur very fine: length, from nose to tail, one foot; of the tail, nine inches: in the form of its body, exactly resembles a beaver.

Inhabits *North America*: breeds three or four times in a year*, and brings from three to six young at a time: during summer, the male and female consort together: at approach of winter, unite in families, and retire into small round edifices, covered with a dome, formed of herbs and reeds cemented with clay: at the bottom are several pipes, through which they pass in search of food; for they do not form magazines like the beavers: during winter, their habitations are covered many feet deep with snow and ice; but they creep out and feed on the roots that lie beneath: they quit their old habitations annually, and build new

* *MS. hist. Hudson's Bay.*

ones. The fur is soft, and much esteemed: the whole animal, during summer, has a most exquisite musky smell; which it loses in winter: perhaps the scent is derived from the *Calamus Aromaticus*, a favorite food of this animal. *Lescarbot* says they are very good to eat.

XXVII.
PORCUPINE.

Two cutting teeth in each jaw.

Body covered with long, hard, and sharp quills.

Upper lip divided.

253. CRESTED.

Υρεξ. *Aristot. hist. An. lib. i. c. 6. Op-
pian Cyneg. iii. 391.**Hystrix. Plinii, lib. viii. c. 35. Gesner
quad. 563. Raii syn. quad. 206.**Acanthion cristatus. Klein quad. 66.**Hystrix orientalis cristata. Seb. Mus. i.
79. tab. 1.**Hystrix cristata. H. palmis tetradacty-
lis, plantis pentadactylis, capite cris-
tato, cauda abbreviata. Lin. syst. 76.
Hasselquist. itin. 290.**Hystrix capite cristato. Briffon quad. 85.**Le Porc-epic. De Buffon, xii. 402. tab.
li. lii. Faunul. Sinens.*

P. with a long crest on the top of the head, reclining backwards, formed of stiff bristles: the body covered with long quills; those on the hind part of the body nine inches in length, very sharp at the ends, varied with black and white; between the quills a few hairs: the head, belly, and legs, are covered with strong bristles, terminated with soft hair, of a dusky color: the whiskers long: ears like the human: four toes before, five behind: tail short, and covered with quills: length, from nose to tail, two feet; tail, four inches.

Inhabits *India*, the sand-hills on the S. W. of the *Caspian* sea, southern *Tartary*, *Persia*, and *Palestine*, and all parts of *Africa*: is found wild in *Italy*; but is not originally a native of * *Europe*: is brought into the markets of *Rome*, where it is eat †. The *Italian* porcupines have shorter quills, and a lesser crest, than those

* *Agricola An. Subt. 486.*† *Ray's Travels, i. 311. Ph. Tr. abridg. v. 147.*

of *Asia* and *Africa* : is an harmless animal : lives on fruits, roots, and vegetables : sleeps by day, feeds by night : the report of its darting its quills fabulous : when angry, retires and runs its nose into a corner, erects its spines, and opposes them to its assailant : makes a snorting noise.

These animals produce a *Bezoar* ; but, according to *Seba*, only those which inhabit *Java*, *Sumatra*, and *Malacca*. He has given the figure of one, under the name of *Porcus aculeatus, seu Hystrix Malaccensis* : it differs little from the *African* and *Indian* kind, and is allowed by him to be the same species *. These *Bezoars* were very highly valued, and have been sold for five hundred crowns apiece. It has also been pretended that a stone was procured from the head of this animal, infinitely more efficacious than other *Bezoars* † ; but this may be placed among the many impositions of oriental empirics.

Porcus aculeatus sylvestris, seu Hystrix orientalis singularis. Seb. Mus. i. 84. tab. lii.

Acanthion cauda prælonga, acutis pilis horrida, in exitu quasi panniculata. Klein quad. 67.

Hystrix cauda longissima, aculeis undique obfita, in extremo panniculata. Briffon quad. 89.

Hystrix macroura. H. pedibus pentadactylis, cauda longissima : aculeis clavatis. Lin. syst. 77.

254 LONG-
TAILED.

P with long whiskers : short naked ears : large bright eyes :
• body short and thick, covered with long stiff hairs as sharp as needles, of different colors, according as the rays of light fall

* *Seb. Mus. i. 81. tab. li.* If the same species, it varies from the common kind, having five toes on each foot, pendulous ears, and no crest. *Linnaeus* ranks it with the hedgehogs, under the title of *Erinaceus Malaccensis. E. auribus pendulis.*

† *Tavernier, ii. 154.*

on them: feet divided into five toes; that which serves as a thumb turns backwards: the tail is as long as the body, very slender to the end, which consists of a thick tuft: the bristles appearing as if jointed; are thick in the middle, and rise one out of the other like grains of rice; are transparent, and of a silvery appearance.

Inhabits the isles of the *Indian Archipelago*, and lives in the forests.

255. BRASILIAN. Tlaquatzin. *Hernandez, Mex.* 330.
Cuandu. *Brasilienfibus, Lufitanis.*
Ourico cachiero. *Marcgrave Brasil,*
233. *Piso Brasil,* 99. 325.
Iron Pig. *Nieuhoff,* 17.
Hystrix Americanus. *Raii syn. quad.*
208.
Hystrix prehensilis. *H. pedibus tetra-*
dactylis, cauda elongata prehensili

feminuda. Lin. syst. 76.
H. cauda longissima, tenui, medietate
extrema aculeorum experte, 87.
H. Americanus major, 88.
Hystrix longius caudatus, brevioribus
aculeis. Barrere France Equin. 153.
Hystrix minor leucophæus, Gouandou.
ibid.
Chat epineux. Des Marchais, iii. 303.

P. with a short blunt nose: long white whiskers: beneath the nose a bed of small spines: top of the head, back, sides, and base of the tail, covered with spines; the longest, on the lower part of the back and tail, are three inches in length, very sharp, white, barred near their points with black; adhere closely to the skin, which is quite naked between them; are shorter and weaker as they approach the belly: on the breast, belly, and lower part of the legs, are converted into dark-brown bristles: feet divided into four toes: claws very long; on the place of the thumb a great protuberance: tail eighteen inches long, slender, and taper towards the end; the last ten inches is almost naked, having



I BRASILIAN PORCUPINE N^o 255.

II QUEBEC MARMOT N^o 259.

only a few hairs on it; has, for that length, a strong prehensile quality.

Inhabits *Mexico* and *Brazil*: lives in the woods: preys not only on fruits, but poultry: sleeps in the day, preys by night: makes a noise with its nostrils as if out of breath: grunts like a sow*: grows very fat: its flesh white, and very good: climbs trees, but very slowly; in descending, twists its tail round the branches, for fear of falling: is no more capable of shooting its quills than the first: may be tamed. *Piso* says there is a greater and lesser kind.

This species is very rarely brought into *Europe*. I had opportunity of describing it from a specimen some time in possession of Mr. *Greenwood*; who was so obliging as to permit me to have a drawing made of it, from which a very faithful figure is here given. M. *de Buffon* † has made mention of this animal in his work; but unjustly reproaches *Marcgrave* with confounding it with the *Mexican* species.

Hoitzlacuatzin, seu Tlacuatzin spinosus, *Hystrix novæ Hispaniæ*. *Hernandez Mex.* 322.
Hystrix novæ Hispaniæ, H. aculeis ap-

parentibus, cauda brevi et crasso. *Briffon quad.* 86.
Le coendou. *De Buffon*, xii. 421. tab. liv.

256. MEXICAN.

P. of a dusky color, with very long bristles intermixed with the down: the spines three inches long, slender, and varied with white and yellow; scarcely apparent, except on the tail,

* *Vocem edit ut Sus*, iii. *Marcgrave*, 233.

† Under the name of *Le Coendou*, xii. 421. tab. liv.

which is, according to *Hernandez*, thicker and shorter than that of the preceding species. He adds, that the tail, from the middle to the end, is free from spines.

SIZE.

According to *Hernandez*, it grows to the bulk of a middle-sized dog. *M. de Buffon* says, its length is sixteen or seventeen inches from the nose to the tail; the tail nine, *French* measure, but taken from a mutilated skin.

PLACE.

Inhabits the mountains of *Mexico*: lives on the summer fruits, and may be easily made tame. The *Indians* pulverise the quills, and say they are very efficacious in gravelly cases; and, applied whole to the forehead, will relieve the most violent head-ach. They adhere till filled with blood, and then drop off.

257. CANADA.

Porcupine from *Hudson's Bay*. *Edw.*

52. *Ellis's voy.* 42. *Clerk's voy.* i. 177, 191.

Cavia Hudsonis. *Klein quad.* 51.

Hystrix dorsata. *H. palmis tetradactylis*, *plantis pentadactylis*, *cauda medi-*

ocri, *dorso solo spinoso*. *Lin. syst.* 76.

Hystrix aculeis sub pilis occultis, *cauda brevi et crassa*. *Briffon quad.* 87.

L'Urfon. De Buffon, xii. 426. *tab.* lv.

LEV. Mus.

P. with short ears, hid in the fur: head, body, legs, and upper part of the tail, covered with soft, long, dark brown hair: on the upper part of the head, back, body, and tail, numbers of sharp strong quills; the longest on the back, the least towards the head and sides; the longest three inches; but all are hid in the hair: intermixed, are some stiff straggling hairs, three inches longer than the rest, tipped with dirty white: under side of the tail white: four toes on the fore feet, five behind, each armed with long claws, hollowed on their under side: the form of the body is exactly that of a beaver; but is not half the size:

one, which Mr. *Banks* brought from *Newfoundland*, was about the size of a hare, but more compactly made: the tail about six inches long.

These animals vary in color. Sir *Ashton Lever* has one, which is entirely white.

Inhabits *N. America*, as high as *Hudson's Bay*: makes its nest under the roots of great trees, and will also climb among the boughs, which the *Indians* cut down when one is in them, and kill the animal by striking it over the nose: are very plentiful near *Hudson's Bay*, and many of the trading *Indians* depend on them for food, esteeming them both wholesome and pleasant: feed on wild fruits and bark of trees, especially juniper: eat snow in winter, drink water in summer; but avoid going into it: when they cannot avoid their pursuer, will sidle towards him, in order to touch him with the quills, which seem but weak weapons of offence; for, on stroking the hair, they will come out of the skin, sticking to the hand. The *Indians* stick them in their noses and ears, to make holes for the placing their ear-rings and other finery: they also trim the edges of their deer-skin habits with fringes made of the quills, or cover with them their bark-boxes.

PLACE.

XXXI.
MARMOT.

Two cutting teeth in each jaw.

Four toes before, five behind.

Short ears, or none.

Tail covered with hair, and of a middling length; in some very short.

258. ALPINE.

Mus Alpinus. *Plinii, lib. viii. c. 37.**Agricola An. Subter. 484. Gesner quad.*743. *Raii syn. quad. 221.*Glis marmota. *Klein quad. 56. Hist.**Mur. Alp. 230.*Murmeltier. *Kramer Austr. 317.*

Mus marmota. M. cauda abbreviata

subpilosa, auriculis rotundatis, buccis gibbis. *Lin. syst. 81.*Glis pilis e fusco et flavicante mixtis vestitus. Glis flavicans, capite rufescente. *Briffon quad. 116, 117.*La Marmotte. *De Buffon, viii. 219. tab. xxviii.*

M. with short round ears, hid in the fur: cheeks large: color of the head and upper part of the body brownish ash, mixt with tawny: legs and lower part of the body reddish: tail pretty full of hair: length, from nose to tail, about sixteen inches; tail six; body thick.

PLACE.

Inhabits the loftiest summits of the *Alps* and *Pyrenean* mountains: feeds on insects, roots, and vegetables: while they are at food, place a centinel, who gives a whistle on seeing any sign of danger, on which they instantly retire into their holes: form holes under ground, with three chambers of the shape of a Y, with two entrances; line them well with moss and hay; retire into them about *Michaelmas*, and, stopping up the entrances with earth, continue in a torpid state till *April*: when taken out remain insensible, except brought before a fire, which revives them:

them : they lodge in society, from five to a dozen in a chamber : will walk on their hind feet : lift up their meat to their mouth with their fore feet, and eat it sitting up : bring three or four young at a time : are very playful : when angry, or before a storm, make a most strange noise ; a whistle so loud and so acute, as quite to pierce the ear : grow very fat about the backs : are sometimes eaten ; but generally taken in order to be shewn, especially by the *Savoyards* : grow very soon tame, and will then eat any thing : are very fond of milk, which they lap, making at the same time a murmuring noise, expressive of their satisfaction : very apt to gnaw any cloaths or linen they find : will bite very hard.

M. with a blunt nose : short rounded ears : cheeks puffed, and of a grey color : face dusky : nose black : hair on the back grey at bottom, black in the middle, and the tips whitish : belly and legs of an orange-color : toes black, naked, and quite divided ; four, and the rudiments of another, on the fore feet ; five behind : tail short, and of a dusky color : was rather larger than a rabbit.

259. QUEBEC.

Inhabits *Hudson's Bay* and *Canada*. Mr. *Brooks* had one alive a few years ago ; it was very tame, and made a hissing noise : perhaps is the species which the *French* of *Canada* call *Siffleur*.

PLACE.

It has lately been described by Dr. *Pallas*, under the name of *Mus empetra* *.

* *Nov. sp. quadr. fasc. i. 75.*

Bahama

260. MARYLAND. Bahama Cony. *Catesby Carolina*, ii. 79. Glis fuscus. Glis fuscus, rostro e cinereo
 Monax. *Catesby Carolina App.* xxviii. cærulefcente. *Briffon quad.* 115.
 Monax, or Marmotte of *America. Edw.* 104. Mus Monax. M. cauda mediocri pi-
 Glis Marmota, Americanus. *Kleinquad.* 56. *De Buffon*, Suppl. iii. 175. tis pentadactylis. *Lin. syst.* 81.

M. with short rounded ears: black prominent eyes: nose sharper than that of the last: nose and cheeks of a blueish ash-color: back of a deep brown color: sides and belly paler: tail half the length of the body, covered with pretty long dusky hair: toes divided, and armed with sharp claws: four toes before, five behind: feet and legs black: is about the size of a rabbit.

PLACE.

Inhabits *Virginia* and *Pensylvania*: during winter sleeps under the hollow roots of trees: is found also in the *Bahama* isles: lives on wild fruits and other vegetables: its flesh is very good, tasting like that of a pig: when surprized, retreats to holes in the rocks: whether it sleeps, during winter, in the climate of those isles, is not mentioned.

261. HOARY.

M. with the tip of the nose black: ears short and oval: cheeks whitish: crown dusky and tawny: hair universally rude and long; that on the back, sides, and belly cinereous at the root, black in the middle, whitish at the tip, so that the animal has a hoary appearance: legs black: claws dusky; four before, five behind: tail black, mixed with rust-color.

About the size of the former.

Inhabits

Inhabits the northern parts of *North America*. Described from
a specimen in the LEVERIAN MUSEUM.

Bobak Swiftch. <i>Rzacinski Polon.</i> 233.	Sogur. <i>Rubruquis's Travels in Purchas.</i>	262. BOBUK.
Bobak. <i>Beauplan hist. Ukrain, Chur-</i>	iii. 6.	
<i>chill's coll.</i> i. 600. <i>Forster's hist.</i>	<i>Arctomys. Pallas nov. sp. fasc. i. 9.</i>	
<i>Volga, Phil. Transf.</i> lvii. 343. <i>De</i>	tab. v.	
<i>Buffon, xiii. 136. tab. xviii.</i>		

M. with small oval thick ears, covered with greyish white down; with longish hairs on the edges: eyes small: whiskers small: color about the eyes and nose dusky brown; among the whiskers ferruginous: upper part of the body greyish, intermixed with long black or dusky hairs, tipped with grey: throat rust-colored: rest of the body, and the inside of the limbs, of a yellowish rust-color: four toes on the fore feet, with a short thumb furnished with a strong claw: five toes behind: tail short, slender, full of hair.

Length from nose to tail sixteen inches; of the trunk of the tail, about four: the hairs extend an inch beyond the end of the trunk.

Inhabits the high but milder and sunny sides of mountainous countries, which abound with fissil or free-stone rocks: seek dry situations, and such which are full of springs, woods, or sand. They are found in *Poland*, and the south of *Russia*, among the *Carpathian* hills; they swarm in the *Ukraine*, about the *Boristhenes*, especially between the *Sula* and *Supoy*; and again between the *Boristhenes* and the *Don*, and along the range of hills which extend to the *Volga*; they are found about the *Taik* and other neighboring

SIZE,

PLACE.

neighboring rivers. Inhabit the southern desert in *Great Tartary*, and the *Altaic* mountains east of the *Irtis*; cease to appear in *Siberia*, on account of its northern situation; but are found again beyond lake *Baikal*, and about the river *Argun* and lake *Dalay*; in the sunny mountains about the *Lena*; and very common in *Kamtshatka*, but rarely reach as high as *lat. 55*.

MANNERS.

They burrow extremely deep, and obliquely, to the depth of two three, or four yards: they form numbers of galleries with one common entrance from the surface; each gallery ends in the nest of the inhabitant. Sometimes the burrows consist of only one passage. They are found in great abundance about the sepulchral tumuli, as they find they can penetrate with great facility in the soft dry earth; but they are very common in the rocky strata; and in the mineral part of the *Urallian* chain, often direct the miners to the veins of copper, by the fragments which appear at the mouth of their holes, flung out in the course of their labors. In very hard and rocky places, from twenty to forty of these animals join together to facilitate the work, and live in society, each with its nest at the end of its respective gallery; but the fewest galleries are found in the softest ground, and very frequently only a single one. In each nest they collect, especially towards autumn, the finest of hay, and in such plenty, that sufficient is found in one nest for a night's food for a horse.

During the middle and sunny part of the day they sport about the entrance of their holes, but seldom go far from them; on the sight of man they retire with a slow pace, and sit upright near the mouth, and give a frequent whistle, listening at the approach. In places where they live in large families, they always

ways place a sentinel to give notice of any danger, during the time the rest are feeding.

They are very fond of oleraceous plants : in a state of confinement eat cabbage and bread very greedily, and drink milk with great eagerness ; but refuse water, and seem never affected with thirst : they are mild and good-natured ; never quarrel or fight about their food in a wild state, and when confined, and placed with others, caught in distant parts, and strangers to them, grow instantly familiar with them : they very soon become tame, even when taken in full age ; but the young immediately become familiar.

The number produced at a birth is not certainly known, probably at times eight ; the females being furnished with that number of teats : they breed early, for in *June* the young are observed to be of half the size of the old.

They lie torpid during winter, except those which are kept tame in the stove-warmed rooms of the country ; and even then, finding a defect of that warmth which the snug nest of their subterraneous retreat would afford, in cold nights creep for shelter into the very beds of the inhabitants. In that state they will not absolutely refuse food, but eat very little, and that with a seeming disgust ; nature allotting for them, in the wild state, a long sleep and cessation from food, the result of plenitude previous to its commencement. They sometimes escape from confinement, find a retreat, and get their winter's sleep, and return to their master in the spring ; but lose much of their gentle manners.

They grow very fat : the fat is used for softening of leather : the skins are used by the *Koreki*, people of *Jakutks*, and the *Russians*,

sians, for cloathing. The *Calmucs* take them in small nets with large meshes, placed before their holes. The inhabitants of *Ukraine* catch them in *May* or *June*, by pouring water into the holes, which forces them into the nets. In *South Russia* they are destroyed by means of a log of wood with a weight at top; the end directed into a wooden box placed at the mouth of the hole, which falls as soon as the animal comes out, and oppresses it by the weight. Their flesh tastes like that of a hare, but is rank.

The *Calmucs* are very fond of the fat ones, and even esteem them medicinally: on the contrary, the *Mahometan Tartars* not only abstain from their flesh, but even give them protection; so that near the hords they are extremely numerous: these *Tartars* esteem a warren of *Bobucks* near them to be very fortunate, and think it a sin to kill one of them, a swallow, or a dove; but at the same time abominate the following animal:

In *Chinese Tartary* they are the propagators of *Rhubarb*, which grows among their burrows: the manure which they leave about the roots contributes to its increase; and the loose soil they fling up, proves a bed for the ripe seed; which, if scattered among the long grass, perishes without ever being able to reach the ground.

II



I



III



I EARLESS MARMOT N°263. II LEMMUS N°317
III JERBOA N°291.

Mus Noricus aut Citellus. *Agricola An. Subter.* 485. *Gesner quad.* 737. *Raii syn. quad.* 220.

Ziesel. *Schwenkfelt. Theriotroph.* 86.

Mus citellus. M. cauda abbreviata, corpore cinereo, auriculis nullis. *Lin. syst.* 80.

Tsitjan. *Le Brun voy. Musc.* ii. 402*.

Cuniculus caudatus, auriculis nullis, cinereus. *Briffon quad.* 101.

Le Ziesel. *De Buffon, xv.* 139.

Le Souflik — 144. 195. *Supplem.* iii. 191. *tab.* xxxi.

Mus Marmotta. *Forster hist. nat. Volgæ. Ph. Transf.* lvii. 343.

Mus Citillus. *Pallas nov. sp. fasc.* i. 119. *tab.* vi. vii. *B. Nov. com. Petrop.* xiv. 549. *tab.* vii.

Earless Marmot. *Syn. quad.* 276. *Cassan M.* — 273.

263. EARLESS.

M. with a cinereous face: over each eye a white line: teeth yellow: whiskers black and long: no ears: hind part of the head, and whole back, of a pale yellowish brown; often distinctly spotted with white; sometimes undulated with grey: under side of the body, and legs, of a yellowish white.

Tail covered with long hair; brown above, bordered with black on each side; each hair tipped with white: under part of a bright rust-color: three middle toes of the fore feet long: claws long and sharp: exterior and interior toes short; the last remote from the others: its claws short and blunt.

Length one foot; of the tail, to the end of the hairs, four inches and a half.

SIZE:

Inhabits *Bohemia, Austria, Hungary*, and from the banks of the

* Un chien courant que j'avois, y prit dans la plaine un petit animal nommé *Zits-jan*, qu'il m'apporta en vie, et un autre peu après, lesquels je fis 'eventrer, pour les conserver. C'est un espece de rat de campagne, de la grosseur d'un écureuil, qui a la queue courte, et le poil et la couleur d'un lapreau, aussi bien que la forme, hors qu'il a la tête plus grosse, et les deux dents de dessous la moitié plus longues que celles de dessus. Il a aussi les pattes de devant plus courtes que celles de derriere, avec quatre grifes, et une plus petite, et cinque à celles de derriere, ressemblant assez à celles d'un singe.

Volga to *India* and *Persia*; through *Siberia*, and *Great Tartary*, to *Kamtschatka* *; some of the intervening isles, such as *Kadjak*; and even the continent of *America* itself.

Burrows, and forms its magazine of corn, nuts, &c. for its winter food †: sits up like a squirrel while it eats: some inhabit the fields in *Siberia*, others penetrate into the granaries; the first form holes under ground, with a double entrance, where they sleep during winter: those which inhabit granaries, are in motion during the cold season. They couple the beginning of *May*, about the *Lena*, but about *Astracan* earlier, and bring from five to eight young, which they bring up in their burrows, and cover with hay: only one animal inhabits each burrow: the females are always separate from the males, except in the coupling season: whistle like the marmot: are very irascible; quarrelsome among themselves, and bite very hard: sit in multitudes near their holes: are very fond of salt: taken in numbers on board the barges which are loaden with that commodity at *Solikamsky*, and fall down into the *Volga* below *Casan*.

Are both herbivorous and carnivorous; feed on plants, and destroy the young of small birds, and the lesser mice.

The *Bohemian* ladies were wont to make cloaks of the skins; we see them at this time made use of for linings, and appear very beautiful for that purpose.

* *Yevraskha*, or *Marmotte minor*. *Gmelin voy. Siberia*, ii. 448.

† *Raii syn. quad.* 220.

M. with truncated ears, the apertures large : short tail : upper 264. GUNDI.
fore teeth truncated ; lower, slender and pointed : four
toes on every foot, each furnished with claws : walks on the whole
hind feet as far as the heel : color, testaceous red.

Size of a small rabbit.

Inhabits *Banbary* towards *Mount Atlas*, near *Massufin*. Described
by the late Mr. *Rohrman*, a *Swede*. This account was communi-
cated to me by Mr. *Zimmerman*. *Gundi* is its *Arabic* name,
which I retain.

M. with short ears : head and body of a cinereous brown : the 265. TAILLESS.
ends of the hairs white : two cutting teeth above ; four
below : no tail.

Inhabits *Hudson's Bay*. In the LEVERIAN MUSEUM.

With

XXX.
SQUIRREL.

With two cutting teeth in each jaw.
Four toes before, five behind.
Long tail, cloathed with long hair.

266. COMMON.

Sciurus. *Gesner quad.* 845. *Raii syn.*
quad. 214.

Wièwiorka. *Rzaczynski Polon.* 225.

Eichhorn. *Klein quad.* 53.

Sciurus vulgaris. Sc. auriculis apice
barbatis, palmis tetradactylis, plantis

pentadactylis. *Lin. syst.* 86.

Ikorn, Graskin. *Faun. suec.* N° 37.

Sciurus rufus quandoque griseo admix-
to. *Briffon quad.* 104.

L'Ecureuil. *De Buffon*, vii. 258. *tab.*
xxxii. *Br. Zool.* i. 93. *LEV. Mus.*

S with ears terminated with long tufts of hair: large lively black eyes: head, body, legs, and tail, of a bright reddish brown: breast and belly white: hair on each side the tail lies flat. In *Sweden* and *Lapland** changes in winter into grey. In many parts of *England* is a beautiful variety with milk-white tails.

Inhabits *Europe*; the northern and temperate parts of *Asia*; and a variety is even found as far *south* as the isle of *Ceylon*: is a neat, lively, active animal: lives always in woods: in the spring, the female is seen pursued from tree to tree by the males, feigning an escape from their embraces. Makes its nest of moss and dried leaves, between the fork of two branches: brings three or four young at a time: has two holes to its nest: stops up that on the side the wind blows, as *Pliny* † justly remarks: lays in a hoard of

* *Faun. suec.* and *Scheffer Lapl.* 135.† *Lib.* viii. c. 38.

winter

winter provision, such as nuts, acorns, &c.: in summer, feeds on buds and young shoots: is particularly fond of those of fir, and the young cones: sits up to eat, and uses its fore-feet as hands: covers itself with its tail: leaps to a surprising distance: when disposed to cross a river, a piece of bark is its boat; its tail the sail*.

A large kind of grey squirrel is found about the upper parts of the river *Obi*, in the district of *Kuznetsk*, and is called *Teleutskaya Belka*, or the squirrel of the *Teleutian Tartars*: it is as large again as the common grey squirrels of those parts, and is preferred to them, on account of the silvery gloss of the skin. Few are sent into *Russia*, the greatest part being sent into *China*, and sell for 6 *l.* or 7 *l.* sterling per thousand †.

A white variety is found common in *Siberia*.

A beautiful black variety about lake *Baikal*. In the *LEVE-RIAN MUSEUM* is a most elegant specimen of this kind.

γ. WHITE-LEGGED SQUIRREL. The head, whole upper part of the body, sides, and toes, of a reddish brown: face, nose, under side of the neck, belly, fore legs, inside of the ears and thighs, white: ears slightly tufted with black: tail long, covered with dusky hairs, much shorter than those in the *European* kind. *Br. Mus.*: by the catalogue, said to be brought from *Ceylon*.

* *Rzacinski, Klein, Scheffer, Linnaeus.*

† *Memorabilia Russ. Asiat. in Muller's Samlung. Russ. vii. 124.*

267. Ceylon. *Sciurus Zeylanicus* pilis in dorso nigricantibus *Rukkaia* dictus a sono. *Raii syn. quad.* 215. *Sciurus macrourus*, long-tailed Squirrel. *Ind. Zool. tab.* i.

S. with ears tufted with black: nose flesh-colored: cheeks, legs, and belly, of a pale yellow: between the ears a yellow spot: forehead, back, sides, haunches, black: cheeks marked with a bifurcated stroke of black; under side red: tail twice as long as the body, of a light grey, and very bushy: the part next the body quite surrounded with hair: on the rest the hairs are separated, and lie flat. Is thrice the size of the *European* squirrel.

Inhabits *Ceylon*; is called there *Dandoelana*: also *Roekea*, from the noise it makes.

268. ABESSINIAN. **S.** with a round flesh-colored nose: hair on the upper part of the body of a rusty black: tail a foot and a half long: belly and fore feet grey: soles of the feet flesh-colored. Thrice the size of an *European* squirrel.

Described from *Thevenot**, who says it was bought at *Moco* from an *Abessinian*; that it was very good-natured, and sportive like a squirrel; would eat any thing except flesh, and would crack the hardest almonds. A variety of the above?

* *Voyage des Indes Orientales*, v. 34.

S. black on the upper part of the body; of a light brown on the lower: end of the tail black: on the thumb a round nail.

269. JAVANI.

This brief account leaves me uncertain whether this is not also a variety.

Inhabits *Java*: discovered by Mr. *Sparman*. Memoirs society at *Gothenburgh*. Dr. *PALLAS*.

S. with tufted ears: head, back, sides, upper part of the legs and thighs, and tail, of a dull purple: the lower part of the legs and thighs, and the belly, yellow: end of the tail orange: length, from nose to tail, near sixteen inches; tail seventeen.

270. BOMBAY.

Inhabits *Bombay*. Described from a stuffed skin in Doctor *Hunter's* cabinet.

Sciurus Erythræus. Pallas Nov. sp. fasc. i. 377:

271. RUSSIA.

S. with the ears slightly tufted: color above yellow, mixed with dusky: below of a blood red, inclined to tawny: tail slender; of the same color, marked lengthways with a black stripe.

Four toes on the fore feet; with a remarkable protuberance instead of a thumb: five toes on the hind.

Rather larger in size than a common squirrel.

Inhabits *India*.

J G

Grey

272. GREY.

Grey Squirrel. *Josselyn's voy. Catesby*
Carolina, ii. 74. *Smith's voy.* 27.
Kalm's voy. 95, 310.
 Fox Squirrel. *Lawson's Carolina*, 124.
Sciurus cinereus Virginianus major.
Raii syn. quad. 215.

Sciurus cinereus. Lin. syst. 86.
Sciurus cinereus. Auriculis ex albo fla-
vicantibus. Brisson quad. 107.
Le Petit-Gris. De Buffon, x. 116. *tab.*
 xxv. *LEV. Mus.*

S. with plain ears: hair of a dull grey color, mixed with black, and often tinged with dirty yellow: belly and insides of the legs white: tail long, bushy, grey, and striped with black. Size of a half-grown rabbit.

Inhabits the woods of *North America*, *Peru**, and *Chili*†; are very numerous in *North America*; do incredible damage to the plantations of *Mayz*; run up the stalks, and eat the young ears; descend in vast flocks from the mountains, and join those that inhabit the lower parts; are proscribed by the provinces, and a reward of three pence *per* head for every one that is killed; such a number was destroyed one year, that *Pensylvania* alone paid in rewards 8000*l.* of its currency.

Make their nests in hollow trees, with moss, straw, wool, &c. Feed on the mayz in the season, and on pine-cones, acorns, and mast of all kinds. Form holes under ground, and there deposit a large stock of winter provision. Descend from the trees and

* *Chinchilles* are small beasts, like squirrels, with wonderfull smoothe and soft skins, which they weare as a healthfull thing to comfort the stomacke; they make coverings and rugs of the haire of these *Chinchilles*, which are found on the *Sierre* of *Peru*. *Acosta in Purchas's Pilg.* iii. 966.

† *Ovalle*, in his history of *Chile*, says, that the grey or ash-color'd squirrels, of the valley of *Guasco*, are valuable for the furs. *Churchill's Coll.* vol. iii. 44.

visit

visit their magazines when in want of meat; are particularly busy at the approach of bad weather; during the cold season keep in their nests for several days together; seldom leap from tree to tree, only run up and down the bodies; their hoards often destroyed by swine; when covered with deep snow, the squirrels often perish for want of food; are not easily shot, nimbly changing their place, when they see the gun levelled; have the actions of the common squirrel; easily tamed; their flesh esteemed very delicate. The furs which are imported under the name of *petit-gris* are valuable, and used as linings to cloaks.

Quahtechalotl-thlitic. *Hernandez Mex.* L'Ecureuil noir. *Briffon quad.* 105.
 582. *Fernandez Nov. Hisp.* 8. *Sciurus niger. Lin. syst.* 86. *LEV. Mus.*
 Black Squirrel. *Catesby Car.* ii. 73.

273. BLACK.

S. with plain ears: sometimes wholly black, but often marked with white on the nose, the neck, or end of the tail: the tail shorter than that of the former: the body equal.

Inhabits the *North of Asia, North America, and Mexico.* I should have placed it as a variety of the last species, did not Mr. *Catesby* expressly say, that it breeds and associates in separate troops; is equally numerous with the former; commits as great ravages among the *Mayz*; makes its nest in the same manner, and forms, like them, magazines for winter food.

β. SQUIRREL, with plain ears: coarse fur, mixed with dirty white, and black, but varies to white: throat, and inside of the legs and thighs, black: tail much shorter than those of squirrels

3 G 2

usually

usually are: of a dull yellow color, mixed with black: body of the size of the grey squirrel. LEV. Mus.

Inhabits *Virginia*; described from Mr. *Knaplan's* collection; who told me that the planters called it the *Cat Squirrel*.

274. HUDSON'S
BAY.

S. with plain ears: smaller than the *European*: marked along the middle of the back with a ferruginous line from head to tail: the sides paler: belly of a pale ash-color, mottled with black: tail not so long, or so full of hair, as the common kind; of a ferruginous color, barred with black, and towards the end is a broader band of the same color. LEV. Mus.

Inhabits the pine-forests about the *Bay*, and *Terra de Labrador*.

«. CAROLINA * SQUIRREL, with the head, back, and sides grey, white, and rust-colored intermixed: belly white, divided from the colors of the sides by a ferruginous line: lower part of the legs red: tail brown, mixed with black, and edged with white.

These are rather lesser than the *European* squirrels: vary in the colors: in most the grey predominates.

* Lesser Grey Squirrel of the old edition.

Quauhtecollotlquapachtli.

XLIII

I



II



III



I HUDSON'S BAY SQ. N° 274. II BLACK N° 273
III GREY N° 272

Quauhitecollotlquapachtli. *Fernandez Nov. Hisp.* 8.
 Le Coquallin. *De Buffon*, xiii. 109. tab. xiii.

275. VARIED.

S. with plain ears: upper part of the body varied with black, white, and brown: the belly tawny*: twice the size of the common squirrel.

Inhabits *Mexico*: lives under ground, where it brings forth its young, and lays in a stock of winter food: lives on Mayz: is never to be tamed.

These probably vary in size: I have seen one that seemed to be of this species, but not superior in size to the common squirrel: the colors were brown, orange, and cinereous: the belly orange.

Sciurus flavus. Sc. auriculis subrotundis, pedibus pentadactylis, corpore luteo.
Lin. syst. 86. *Amæn. Acad.* i. 561.

276. FAIR.

S. with the body and tail of a flaxen color: of a very small size, with plain round ears, and rounded tail.

Inhabits the woods near *Amadabad*, the capital of *Guzarat*, in great abundance, leaping from tree to tree†. *Linnaeus* says it is an inhabitant of *South America*.

* Called by the *Indians*, *Coxtiocotequallin*, or *Yellow Belly*.

† L'Ecureuil blond. *Della Valla*, p. 84.

277. BRASILIAN. *Sciurus Brasiliensis* ? *Marcgrave Bras-*
fil, 330. 107.
Sciurus coloris ex flavo et fusco mixti *Sciurus æstuanus*. *Sc. griseus, subtus*
tæniis in lateribus albis. Briffon quad. *flavescens. Lin. syst. 88.*

S. with plain ears, and rounded tail : head, body, and sides, covered with soft dusky hairs, tipped with yellow : tail rounded : the hairs annulated with black and yellow : throat cinereous : inside of the legs, and the belly, yellow : the belly divided lengthways with a white line ; which begins on the breast, is interrupted for a small space in the middle, and is then continued to the tail : length, from nose to tail, eight inches one quarter : tail ten.

Inhabits *Brasil* and *Guiana*. Mr. *Vandeck*, captain of a man of war in the *Portuguese* service, who procured them from their settlements in *S. America*, favored me with two.

278. MEXICAN. *Tlalmototli. Fernandez Nov. Hisp. 9.* *Seb. Mus. i. 76. tab. xlvii. fig. 2, 3.*
Sciurus rarissimus ex Nov. Hispania. *Briffon quad. 108.*

S. of a mouse-color : the male marked on the back with seven white lines, which extend along the tail ; the female, with only five : the tail of the male divided into four parts at the end ; perhaps accidentally : its *scrotum* pendulous, like a goat's.

Inhabits *New Spain*. *Seba*, in *tab. xlviii. fig. 5.* has the figure of another, of an uniform color, distinguished also by its vast *scrotum*.

Mustela

Mustela Africana. *Clus. Exot.* 112. *So. palmarum.* *Sc. coloris ex rufo et*
Raii syn. quad. 216. *nigro mixti, tæniis in dorso flavi-*
Sciurus palmarum. *Sc. subgriseus striis* *cantibus.* *Briffon quad.* 109.
tribus flavicantibus, caudaque albo *Le Palmiste.* *De Buffon, x. 126. tab.*
nigroque lineata. *Lin. syst.* 86. *xxvi.*

279. PALM.

S with plain ears : an obscure pale yellow stripe on the middle of the back, another on each side, a third on each side of the belly ; the two last at times very faint : rest of the hair on the sides, back, and head, black and red, very closely mixed ; that on the thighs and legs more red : belly, pale yellow : hair on the tail does not lie flat, but encircles it ; is coarse, and of a dirty yellow, barred with black. Authors describe this kind with only three stripes : this had five, so possibly they vary.

Governor *Loten* did me the favor of informing me that it lived much in the *Coco* trees, and was very fond of the *sury*, or palm-wine, which is procured from the tree ; from which it obtained, among the *Indians*, the name of *Suricatsje*, or the *little cat* of the *Sury* *.

According to *Clusius* and Mr. *Ray*, this species does not erect its tail like other squirrels, but has the faculty of expanding it sideways.

* See the process of obtaining this liquor in *Rumphius's herbarium Amboinense*, vol. i. p. 5. The tree is engraved in *tab. i. ii.*

280.

β. BARBARY. *Sciurus getulus*. *Caii opusc.* 77. *Gesner quad.* 847. *Klein quad.* 84. *Briffon quad.* 109. Barbarian squirrel. *Edw.* 198.
Sc. getulus. *Sc. fuscus striis quatuor albis longitudinalibus*. *Lin syst.* 87. *Le Barbarefque. De Buffon, x.* 126. *tab.* xxvii.

S with full black eyes and white orbits : head, body, feet, and tail, cinereous, inclining to red : lightest on the legs : sides marked lengthways with two white stripes : belly white : tail bushy, marked regularly with shades of black, one beneath the other : size of the common squirrel.

Both these squirrels inhabit *Barbary* and other hot countries : live in trees, especially *palms*, from which one takes its name.

8. PLANTANE.

T H I S species resembles much the common squirrel, but is lighter colored, and has a yellow line extending along the sides, from leg to leg.

Common in *Java* and *Prince's island* ; is called by the *Malayes*, *Ba-djing* ; lives much on *Plantanes* ; is very shy ; retreats at the sight of mankind, and clatters over the dry leaves of the *Pitang* or *Plantanes* with vast noise. It also is common on the *tamarind* trees.



SAILING SQUIRREL N^o 281

A. with membranes from fore leg to hind leg.

Sciurus Sagitta. Sc. hypochondriis prolixis volitans, cauda plano-pinnata lanceolata. *Lin. syst.* 88.

Sciurus petaurista. *Pallas Miscel. Zool.* 54. *tab.* vi.

Sciurus maximus volans, seu *felis volans*. Sc. castanei coloris, in parte corporis superiore, in inferiore vero

eximie flavescentis; cute ab anticis cruribus ad postica membranæ in modum extensa volans. *Briffon quad.* 112.

Le Taguan ou grand Ecureuil volant. *De Buffon*, Suppl. iii. 150. *tab.* xxi. *Mus. Roy. Society* *.

281. SAILING.

S. with a small rounded head: cloven upper lip: small blunt ears: two small warts at the outmost corner of each eye, with hairs growing out of them: neck short: four toes on the fore feet; and instead of a thumb, a slender bone, two inches and a half long, lodged under the lateral membrane, serving to stretch it out: from thence to the hind legs extends the membrane, which is broad, and a continuation of the skin of the sides and belly; the membrane extends along the fore legs, and stretches out near the joint in a winged form: five toes on the hind feet, and on all the toes sharp, compressed, bent claws: tail covered with long hairs, disposed horizontally: color of the head, body, and tail, a bright bay; in some parts inclining to orange: breast and belly of a yellowish white: length, from nose to tail, eighteen inches; tail fifteen.

Inhabits *Java* †, and others of the *Indian* islands: leaps from tree to tree as if it flew: will catch hold of the boughs ‡ with

* Where there is the skin of one in fine preservation.

† *Hamilton's voy.* ii. 131.

‡ *Sir Edward Michelbourne's voy. in Purchas's Pilgrim.* i. 134.

the tail. Differs in size : that described by *Linnaeus* was the size of our squirrel : that killed by Sir *Edward Michelbourne*, in one of the *Indian* isles, was greater than a hare. *Nieuboff*, describes this species under the name of the Flying Cat, and says the back is black : he has given two very good figures of it ; one in his frontispiece, the other in the page he describes it in *.

282. SEVERN RIVER.

Greater Flying Squirrel. *Pb. Tr.* lxii. 379.

S. with back and sides of a deep cinereous color at the bottom ; end ferruginous : under side of the body of a yellowish white ; the hair every where long and full : tail covered with long hairs, disposed in a less flat way than those of the *European* kind ; brown on the upper part, darker at the end, yellowish beneath the skin : the instrument of flying disposed from leg to leg ; but does not border the fore legs.

SIZE.

Size equal to the *European* squirrel.

PLACE.

Inhabits the southern parts of *Hudson's Bay*, about *Severn* river. *Mus. Roy. Society.*

283. FLYING.

Assapanick. Smith's Virginia, 27. *Joselyn's voy.* 86. *De Laet*, 88.
Sciurus Americanus volans. Raii syn. quad. 215. *Lawson's Carolina*, 124.
Catesby Carolina, ii. 76, 77. *Edw.* 191. *Kalm*, i. 321. *tab. i. Du Pratz.*

ii. 69.

Sciurus volans. Sc. hypochondriis prolixis volitans, cauda rotundata. Lyn. syst. 88.

Sciurus volans. Brisson quad. 110. iii. No. 12. *LEV. MUS.*

S. with round naked ears : full black eyes : a lateral membrane from fore to hind legs : the fore legs for the most part clear of the membrane : tail with long hairs disposed hori-

* *Churchill's coll.* ii. 354.

zontally,

zontally, longest in the middle; and ending in a point: color above, a brownish ash: beneath, white, tinged with yellow. Much less than the common squirrel.

Inhabits *North America* and *New Spain**: lives in hollow trees: sleeps in the day: during the night very lively: is gregarious, numbers being found in one tree: leaps from bough to bough sometimes at the distance of ten yards: this action improperly called *flying*, for the animal cannot go in any other direction than forward; and even then cannot keep an even line, but sinks considerably before it can reach the place it aims at: sensible of this, the squirrel mounts the higher, in proportion to the distance it wishes to reach: when it would leap, it stretches out the fore legs, and extending the membranes, becomes specifically lighter than it would otherwise be; and thus is enabled to spring further than other squirrels that have not this apparatus. When numbers leap at a time, they seem like leaves blown off by the wind. Their food the same as the other *American* squirrels: are easily tamed: bring three or four young at a time.

Sciurus Virginianus volans. Seb. Mus. i. tab. xlv. Brisson quad. iii.
Mus volans. Lin. syst. 85.

284. HOODED.

S. with the lateral membrane beginning at the chin and ears, and extending like the former from fore to hind leg: reddish above; cinereous, tinged with yellow, beneath: ears large and oval.

* Where it is called *Quimichpatlan. Fernandez. Nov. Hisp. 8.*

3 H 2

Inhabits

Inhabits *Virginia*, according to *Seba*; who is the only author who has described it. *Linnaeus's* synonyms, from *Ray* and *Edwards*, erroneous.

285. EUROPEAN Mus Ponticus vel Scythicus. *Gesner* volitans, cauda rotundata. *Lin. syst.*
 FL. SQ. quad. 743. 83.
 Sciurus Petaurista volans. *Klein quad.* Sciurus Sibiricus volans. *Briffon*, 110.
 54. No. 13.
 Flying squirrel. *Pb. Trans. abr.* ix. Le Poulatouche. *De Buffon*, x. 95.
 76. tab. v. tab. xxii.
 Sciurus volans. *Faun. suec.* No. 38. Quadrupes volatilis *Russæ*. *Com. acad.*
Pallas nov. sp. fasc. i. 355. *Petrop.* v. 218. LEV. Mus.
 Sc. volans Sc. hypochondriis prolaxis

S. with naked ears, indented on the exterior side: full eyes: eyelids bordered with black: membranes extend to the very base of the fore feet, and form a large wing on the exterior side: tail full of hair, and round at the end: color of the upper part of the body a fine grey, like that on a gull's back: lower part of a pure white.

SIZE.

From nose to tail four inches and a quarter; of the tail to the tip of the hair, five.

PLACE.

Inhabits *Finland* and *Lapland*, and the *Russian* dominions, from *Eivonia* to the river *Kolyma* or *Kowyma*, in the N. E. part of *Siberia*, and is common in all the mountainous wooded tracts of that cold region: lives usually on birch-tree buds and fructifications, and on the cones of the pines and cedars: is not gregarious, and leads a solitary life, and wanders about even in winter: lives in hollow trees, and makes its nest in the moss of birch-trees:

trees : when at rest, it flings its tail over its back ; but in leaping, extends it.

The *Germans* call it *Könige der Grauwerke* *, or King of the Squirrels ; the *Russians*, *Polatucha*, and *Letaga* ; the *Poles*, *Wiewiorka Lataiaca*.

NAMES.

• *Klein*.

XXXI.
DORMOUSE.

Two cutting teeth in each jaw.

Four toes before: five behind.

Naked ears.

Long tail, covered with hair.

286. STRIPED.

Mouse squirrel. *Jesselyn's voy.* 86.Ground squirrel. *Lawson Carolina,*
124. *Catesby Carolina,* ii. 75. *Edw.*181. *Kalm,* i. 322. *tab.* i.*Sciurus Listeri.* *Raii syn. quad.* 216.*Sciurus minor virgatus.* *Nov. Com. Pe-*
trop. v. 344.*Boern-doeskie.* *Le Brun. voy. Moscow,*
ii. 432.*Sciurus striatus.* *Sc. flavus striis quin-*
que fuscis longitudinalibus. *Lin. syst.*
87. *Klein quad.* 53. *Pallas nov. sp.*
fasc. i. 378.*Sciurus Carolinensis.* *Briffon quad.**Le Suisse.* *De Buffon,* x. 126. *tab.*
xxviii. *Charlevoix Nouv. France,* v.
198. *LEV. Mus.*

D. with plain ears: ridge of the back marked with a black streak: each side with a pale yellow stripe, bounded above and below with a line of black: head, body, and tail, of a reddish brown; the tail the darkest: breast and belly white: nose and feet pale red: eyes full.

PLACE.

Inhabits the north of *Asia*, beginning about the river *Kama*, and grows more and more frequent in the woody parts of *Siberia*; but found in the greatest abundance in the forests of *North America*: they never run up trees except pursued, and find no

MANNERS.

other means of escaping: they burrow, and form their habitations under ground with two entrances, that they may get access to the one, in case the other is stopped up. Their retreats are formed with great skill, in form of a long gallery, with branches on each side, each of which terminates in an enlarged chamber, as a magazine

MAGAZINES.

to

to store their winter provision in ; in one they lodge the acorns, in another the *mayz*, in a third the hickery nuts, and in the last, their favorite food, the *chinquapin* chesnut. They very seldom stir out during winter, at least as long as their provisions last ; but if that fails, they will dig into cellars where apples are kept, or barns where *mayz* is stored, and do a great deal of mischief ; but at that time the cat destroys great numbers, and is as great an enemy to them as to mice.

During the *mayz* harvest, these animals are very busy in biting off the ears, and filling their mouths so full with the corn, that their cheeks are quite distended, having pouches in their jaws like the *hamster*. It is observable, that they give great preference to certain food ; for if, after filling their mouths with rye, they happen to meet with wheat, they fling away the first, that they may indulge in the last. They are very wild, bite severely, and are scarcely ever tamed : the skins are of little use ; but are sometimes brought over to line cloaks.

Glis. *Gesner quad.* 550. *Raii syn. quad.* 229.

Glis vulgaris. *Klein quad.* 56.

Glis supra obscure cinereus, infra ex albo cinerescens. *Briffon quad.* 113.

Sciurus Glis. Sc. canus subtus albidus. *Lin. syst.* 87.

Le Loir. *De Buffon*, viii. 158. *tab.* xxiv.

Mus Glis. *Pallas nov. sp. fasc.* i. 88.

287. FATE.

D. with thin naked ears : body covered with soft ash-colored hair : belly whitish : tail full of long hair : from nose to tail, near six inches ; tail four and a half : thicker in the body than the squirrel.

Inhabits *France* and the south of *Europe*. Is found in the woods in the south-west parts of *Russia*, and was discovered by
Doctor

D O R M O U S E.

Doctor *Pallas* in the rocky caverns about the rivers *Samara* and *Volga*. The late Doctor *Kramer* favored me with one from *Austria*. Lives in trees, and leaps from bough to bough : feeds on fruits and acorns : lodges in the hollows of trees : remains in a torpid state during winter, and grows very fat,

*Tota mihi dormitur hyems, et pinguior illo
Tempore sum, quo me nil nisi somnus alit *.*

Was esteemed a great delicacy by the *Romans*, who had their *Gliraria*, places constructed to keep and feed them in. I think that the *Italians* at present eat them.

288. GARDEN.

Mus avellanarum major. *Gesner quad.*
735.

Greater Dormouse, or Sleeper. *Raii*
syn. quad. 219.

Glis supra obscure cinereus, infra ex
albo cinerescens, macula ad oculos
nigra. *Briffon quad.* 114.

Mus quercinus. *M. cauda elongata*
pilosa, macula nigra sub oculos. *Lin.*
syft. 84.

Le Lerot. *De Buffon*, viii. 181. *tab.*
xxv.

Mus nitedula. *Pallas nov. sp. fasc.* i.
88.

D. with the eyes surrounded with a large spot of black, reaching to the base of the ears, and another behind the ears : head and whole body of a tawny color : the throat and whole under side of the body white, tinged with yellow : the tail long : the hairs at the beginning very short ; at the end bushy : length, from nose to tail, not five inches : the tail four.

Inhabits *France* and the south of *Europe* : is found in magpies nests and hollow trees about the *Volga*, and other temperate

* *Martial Epig. Lib. xiii. Ep. 59.*

and southern parts of the *Russian* dominions. Neither this nor the former species extend beyond the *Uralian* mountains: infests gardens, and is very destructive to fruits of all kind: is particularly fond of peaches: lodges in holes in the walls: brings five or six young at a time: like the former, remains torpid during winter: has a strong smell, like a rat.

Mus avellanarum minor, the Dormouse
or Sleeper. *Raii syn. quad.* 220.

Rothe Wald Maufs. *Kramer Austria*,
317.

Glis supra rufus, *infra albicans*. *Bris-*
son quad.

Mus avellanarius. *M. cauda elongata*
pilosa, corpore rufo, gula albicante,

pollicibus posticis muticis. *Lin. syst.*

83. *Faun. Suec.* No. 35. *Pallas nov.*

sp. fasc. i. 89.

Le Muscardin. *De Buffon*, viii. 193.
tab. xxvi.

Dormouse. *Edw.* 266. *Br. Zool.* i. 95.

LEV. *Mus.*

289. COMMON.

D. with round naked ears: full black eyes: body of a tawny red: throat white: size of a mouse, but plumper: tail two inches and a half long, and pretty hairy, especially towards the end.

Inhabits *Europe*: lives in thick hedges: makes its nest in the hollow of a low tree, or in a thick bush near the bottom, of grass, moss, or dead leaves: brings three or four young at a time: seldom appears far from its retreat: forms magazines of nuts: eats its food sitting up, like a squirrel: at approach of winter, retires and rolls itself up, lying torpid: sometimes in a warm day revives, takes a little food, and relapses into its former state.

290. EARLESS.

D. with a flat head, obtuse nose, eyes full and black, upper lip bifid.

Auricles very minute, scarcely apparent : long whiskers.

Head, back, sides, and front of the fore legs, pale ferruginous, mixed with black : from shoulder to hind parts, on each side, a white line : above each eye another : belly and feet of a dirty white.

Tail black in the middle ; hoary on the sides.

Toes long and distinct : the knob on the fore feet large : claws very long.

Hind legs black behind, and naked.

SIZE.

Size of a common squirrel, but much broader and flatter.

PLACE.

800 miles above the *Cape of Good Hope*, about the mountain *Sneeburgh*.

MANNERS.

Never climbs trees : burrows, feeds on bulbous roots, and is particularly fond of potatoes : walks often on its hind feet ; and often lies flat on its belly : very tame, and never offers to bite : frequently flirts up its tail : makes a warm nest, and forms in it a round hole, in which it lodges, and pulls to the orifice a quantity of materials, in order to close it : keeps sometimes in its retreat for three entire days.

Two cutting teeth in each jaw.

Two very short fore legs : two very long hind legs, resembling those of cloven-footed water-fowl.

Very long tail, tufted at the end.

XXXII.
JERBOA.

Mus dromedarius. Theophr. opusc. 295. *Ælian*
hist. an. lib. xv. c. 26.

Mus bipes. *Plinii, lib. x. c. 65. Texeira's Travels, 21.*

Gerbua. *Edw. 219. Plaiſted's journal, 59.*

Mus jaculus. *M. cauda elongata flo-*

cosa, palmis subpentadactylis, femoribus longissimis, brachiis brevissimis. Lin. syst. 85. Hasselquist itin. 198.

Le Jerbo. De Buffon, xiii. 141.

Mus sagitta. Pallas nov. sp. fasc. i. 306. tab. xxi.

291. *ÆGYPTIAN.*

J with thin, erect, and broad ears : full and dark eyes : long whiskers : fore legs an inch long ; five toes on each ; the inner, or thumb, scarce apparent ; but that, as well as the rest, furnished with a sharp claw : hind legs two inches and a quarter long, thin, covered with short hair, and exactly resembling those of a bird ; three toes on each, covered above and below with hair ; the middle toe the longest ; on each a pretty long sharp claw : length, from nose to tail, seven inches and one quarter : tail ten inches, terminated with a thick black tuft of hair ; the tip white ; the rest of the tail covered with very short coarse hair : the upper part of the body thin, or compressed sideways : the part about the rump and loins large : the head, back, sides, and thighs, covered with long hair, ash-colored at the bottom, pale tawny at the ends : breast and belly whitish : across the up-

per part of the thighs is an obscure dusky band : the hair long and soft.

Inhabits *Ægypt*, *Barbary*, *Palestine*, the deserts between *Balsora* and *Aleppo*, the sandy tracts between the *Don* and *Volga*, the hills south of the *Irtish*, from fort *Janiyschera* to the *seven palaces*, where the *Altaic* mountains begin : as singular in its motions as in its form : always stands on its hind feet ; the fore feet performing the office of hands : runs fast ; and when pursued, jumps five or six feet from the ground : burrows like rabbits : keeps close in the day : sleeps rolled up : lively during night : when taken, emits a plaintive feeble note : feeds on vegetables : has great strength in its fore feet. Two, which I saw living in *London*, burrowed almost through the brick wall of the room they were in ; came out of their hole at night for food, and when caught, were much fatter and sleeker than when confined to their box.

This is the *Daman Israel*, or the *Lamb of the Israelites* of the *Arabs*, and is supposed to be the *Saphan* *, the coney of HOLY WRIT : our rabbit being unknown in the *Holy Land*. Dr. *Shaw* met with this species on mount *Libanus*, and distinguishes it from the next species †. It is also the mouse of *Isaiab* ‡, *Achbar* in the original signifying a male *Jerboa*.

* *Bochart* displays a vast deal of learning on the subject. *Vide Hierozoicon*, lib. iii. c. 33. p. 1001.

† *Travels*, 376.

‡ Chap. lxvi. 17. *Bochart*, 1015. This animal was a forbidden food with the *Israelites*.

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Sibirian Jerboa N^o 292

Cuniculus pumilio saliens cauda longissima. Nov. Com. Petrop. v. 351. tab. ix. fig. 1.

Cuniculus pumilio saliens, cauda anomola longissima. Brisson quad. 103.

Flying hare. *Strahlenberg's hist. Russ.* 370.

Jerboa. *Shaw's Trav.* 248.

Mus jaculus. Pallas nov. sp. fasc. i. 275. tab. xx. Mus. Lev.

292. SIBIRIAN.

NOSE truncated; end edged with white: lower teeth slender; twice as long as the upper.

α. GREAT.

Ears large, pointed, tip with white, naked within: hairs on the back tawny, of a dark grey beneath, very soft: legs and whole under side of the body white: half the tail next to the body covered with short whitish hairs; from thence, with long black hairs; the end has a large white feathered tuft an inch long.

Five toes on the fore feet; the toe without a nail.

On the hind legs, an inch above the feet, are two long toes armed with nails: the back part of the legs naked.

Length eight inches and a half; of the tail ten.

This variety is no where very frequent, but is chiefly found from the *Caspian* sea to the river *Irtish*.

PLACE.

Of the size of a rat: of the color of the former, except that the rump on each side is crossed with a white line.

β. MIDDLE.

There is again a variety of this with a more lengthened nose, shorter ears, and broader: tail thicker, and not so elegantly tufted: the hind legs shorter: the coat longer and thicker.

This middle species is found only in the eastern deserts of *Siberia* and *Tartary*, beyond lake *Baikal*; also in *Barbary** and *Syria*†, and even as far as *India*‡.

* *Shaw's Travels.*

† *Haym's Tesora Brit. ii. p. and tab. 124.*

‡ *Pallas.*

Differs,

γ. PYGMY.

Differs from the *Great*, in wanting the white circle round the nose, in having a less tuft to the tail, and the end just tipped with white: agrees entirely in form; but is far inferior in size to even the *Middle*. Inhabits the same places with the *Great*.

MANNERS.

These three agree in manners: burrow in hard ground, clay, or indurated mud: not only in high and dry spots, but even in low and salt places. They dig their holes very speedily, not only with their fore feet but with their teeth, and fling the earth back with their hind feet, so as to form a heap at the entrance. The burrows are many yards long, and run obliquely and winding, but not above half a yard deep below the surface. They end in a large space or nest, the receptacle of the purest herbs. They have usually but one entrance; yet by a wonderful sagacity they work from their nest another passage to within a very small space of the surface, which in case of necessity they can burst through, and so escape.

It is singular, that an animal of a very chilly nature, should keep within its hole the whole day, and wander about only in the night.

They sleep rolled up, with their head between their thighs: and when kept in a stove, and taken suddenly out, they seem quite stupified, and for a time scarcely find the use of their limbs: perhaps this arises from an excess of heat; for when an attempt is made to take them out of their burrows, they are quickly alarmed on the noise of digging, and attempt their escape. At sun-set they come out of their holes, clear them of the filth, and keep abroad till the sun has drawn up the dews from the earth. On approach of any danger, they immediately take to flight, with leaps: a fathom in height, and so swiftly that a

GREAT LEAPS.

man

man well mounted can hardly overtake them. They spring so nimbly, that it is impossible to see their feet touch the ground. They do not go strait forwards, but turn here and there, till they gain a burrow, whether it is their own, or that of another. In leaping, they carry their tails stretched out: in standing, or going or walking, they carry them in form of an S, the lower part touching the ground, so that it seems a director in their motions. When surprized, they will sometimes go on all fours, but soon recover their attitude of standing on their hind legs like a bird: even when undisturbed, they use the former attitude; then rise erect, listen, and hop about like a crow. In digging or eating they drop on their fore legs; but in the last action will often sit up and eat like a squirrel.

They are easily made tame: seek always a warm corner: foretell cold or bad weather by wrapping themselves close up in hay; and those which are at liberty stop up the mouths of their burrows.

EASILY TAMED.

In a wild state they are particularly fond of the roots of tulips: live much on oleraceous plants: the small stature of the *pygmy* kind is attributed to their feeding on saline plants. Those of the middle size, which live beyond the lake *Baikal*, live on the bulbs of the *Lilium Pomponium*, and they gnaw the twigs of the *Robinia Carugana*. When confined, they will not refuse raw meat, and the entrails of fowls.

FOOD.

They are the prey of all lesser rapacious beasts. The *Arabs*, who are forbidden all other kinds of mice, esteem these the greatest delicacies: as those people often are disappointed in digging after them, they have this proverb, "To buy a hole instead of a *Jerboa*."

The

The *Mongols* have a notion that they suck the sheep: certain it is, they are during night very frequent among the flocks, which they disturb by their leaps.

NAMES.

The *Mongols* call this animal *Alagh-Daagha*. *Alagh* signifies variegated, *Daagha*, a foal. The *Calmucs* call it *Jalma*: the great sort they style *Morin Jalma*, or the *Horse Jerboa*; the lesser sort, *Choïn Jalma*, or the *Sheep*.

They breed often in the summer; in the southern parts, in the beginning of *May*: beyond *Baikal*, not till *June*. They bring perhaps eight at a time, as they have so many teats. They sleep the whole winter without nutriment. About *Astracan*, they will sometimes appear in a warm day in *February*: but return to their holes on the return of cold.

Animals of this genus were certainly the *two-footed mice*, and the *Ægyptian mice*, of the ancients, which were said to walk on their hind legs; and use the fore instead of hands. These, with the plant *Silphium*, were used to denote the country of *Cyrene*, where both were found, as appears from the figures on a beautiful gold coin preserved by Mr. *Haym**, and which I have caused to be copied above the animal, in plate

393. CAPE.

Grand Gerbo. *Allamand de Buffon*, xv. 118. *Journal Historique*, 59.

J with a short head: broad between the ears: mouth placed far below the upper jaw: lower very short: two great teeth in each: ears one-third shorter than those of the common rabbit, thin and transparent: eyes large: whiskers great.

Fore legs short, five toes on each, with a great protuberance

* *Tesoro Brit.* ii. 124.

next

next to the inner toe : four toes behind : claws of the fore toes crooked, and two-thirds longer than the toes themselves : claws of the hind toes short.

Color above tawny ; cinereous below, mixed with long hairs pointed with black : two-thirds of the tail tawny, the rest black.

Length from nose to tail one foot two inches ; of the tail near fifteen inches ; the ears near three.

Inhabits the great mountains far north of the *Cape of Good Hope*. It is called by the *Hottentots*, *Aerdmannetje* ; and by the *Dutch*, *Springen Haas*, or the *Jumping Hare*.

It is very strong ; will leap twenty or thirty feet at a time : its voice a grunting : when it eats, sits upright, with the legs extended horizontally, and with a bent back : uses its fore feet to bring the food to its mouth ; burrows with them, which it does so expeditiously as quickly to bury itself. In sleeping, it sits with its knees separate, puts its head between its hind legs, and with the fore legs holds its ears over its eyes.

Mus longipes. *M. cauda elongata vestita*, palmis tetradactylis, plantis pentadactylis, femoribus longissimis. *Lin. syst.* 84.

Mus cauda longa vestita, pedibus posterioribus longitudine corporis, flavis. *Mus. Ad. Tr.* 9.

294. TORRID.

J with naked oval ears : long whiskers : four toes on the fore feet : the hind feet the length of the body, thick, strong, and thinly haired : five toes on each foot : scarcely any neck : tail the length of the body, with very little hair on it : color of the up-

per part of the body yellow; the lower white: size of a common mouse.

Inhabits, according to *Linnaeus*, the torrid zone*: mentioned by no other writer.

* *Habitat in torridis regionibus.*

Two cutting teeth in each jaw.

Four toes before ; five behind.

Very slender taper tail ; naked, or very slightly haired.

XXXIII. RAT.

* Jerboid.

R. with a blunt nose : mouth placed far beneath : upper lip bifid : ears large, naked, rounded : fore legs short, furnished with four toes, and a tubercle instead of a thumb : hind legs long and naked, like some of the *Jerboas* : thumb short : toes long, slender, and distinct ; the exterior the shortest.

295. LABRADOR.

The whole length of the animal eight inches : of which the tail is four and three quarters.

Color deep brown above, white beneath, separated the whole length on each side by a yellow line.

Inhabits *Hudson's Bay*, and the *Labradore* coast. Sent by Mr. *Graham*, and deposited in the Museum of the *Royal Society*.

PLACE.

Since I wrote the above, I find that Doctor *Pallas* has described this species under the title of *Mus Longipes* *. It inhabits the sandy desert of *Naryn*, or *Ryn Pesky*, between the *Volga* and the *Yaik*, near the *Caspian Sea*, in lat. $46 \frac{1}{2}$. In this tract scarcely any thing grows except the *Torlok*, or *Pterococcus Aphyllus*, and a few other poor plants on which it feeds. Two were there taken sporting in the mid-day sun ; they were both males, and attempted to

* *Nov. sp. fasc. i. 314. tab. xviii. B. Mus mindianus ? Itin. ii. 702.*

escape to different holes. The burrows had three entrances running obliquely, and were about a yard deep: lined or plaistered with mud. In the bottom was neither nest or provision of grafs.

The *Asiatic* animal differed in color from the *American*, being above of a light grey mixed with tawny, white below: these colors divided lengthways by a stripe of dusky red. The tail covered with longer and looser hair at the end than in the other parts: the soles of the feet clad with hair. This I could not well observe in the specimen from *Hudson's Bay*, as it was preserved in spirits. *Linnaeus* describes this species under the title of *Mus longipes*, *Syst. nat.* 84. Doctor *Pallas*, with great reason, supposes it to be the same with the *Jird* of Doctor *SHAW*, which our learned countryman describes with the *Jerboa*. It agrees in colors with the above; in its long tail being better cloathed than that of a rat; and in its burrowing under ground. This is frequent in *Barbary*, and is reckoned there a good food*.

295. A. CIRCASSIAN.

To this I join, on the judgment of Doctor *Pallas*, another animal, which I described at N° 205 of the *Synopsis of Quadrupeds*, under the title of *Circassian Marmot*, or

M. with ears like those of mice: red sparkling eyes: sharp teeth: body long, and of an equal thickness: chesnut-colored hair, long, especially on the back: has sharp claws: tail long and bushy: fore feet shorter than the hind feet: size of the *Hamster*, N° 324.

Inhabits the neighborhood of the river *Terek*, which flows out

* *Shaw's travels*, 248.

of *Circassia* and falls into the *Caspian Sea*: runs fast up hill, very slowly down: burrows, and lives under ground*.

Mus Tamaricinus. Pallas nov. sp. i. 322. tab. xix. Itin. ii. 702.

296. TAMARISK.

R. with an oblong head: great whiskers: nose blunt: nostrils covered with a flap: teeth yellow: eyes large and brown: ears large, naked, and oval: neck short: space round the nose and eyes, and beyond the ears, white: sides of the head and neck hoary: back and sides of a yellowish grey: tips of the hairs brown: breast and belly white: tail cinereous; above half annulated with brown: hind legs long: on the fore feet a warty tubercle instead of a thumb.

Length to the tail above six inches: tail not quite so long.

SIZE.

Inhabits the lower salt-marshes about *Saritschikofka*, on the *Lower Yaik* or *Ural*, where they burrow beneath the knotty roots of the tamarisk bushes; each burrow has two entrances, and is very deep: they feed only at night: out of numbers which were taken in traps placed before their holes, not a female was taken. Their food is the succulent maritime tribe of plants, such as *Nitraria*, *Salsola*, and others, with which those deserts abound.

PLACE.

To this division of Rats I give the title of *Ferboid*, from the affinity it has to that genus in the length of the hind legs. To the other, *Murine*, as comprehending all the common species of Rats and Mice.

* *Schöber's memorab. Afiat. Russiæ in Muller's Samlung Russ. viii. 124.*

** *Murine.*

** Murine.

297. BLACK.

Mus domesticus major quem vulgò Rat-
tum vocant. *Gesner quad.* 731. *Raii*
syn. quad. 217.

Mus Rattus, *Mus Cistrinarius*. *Klein*
quad. 57.

Ratze. *Kramer Austr.* 316.

Mus cauda longissima obscure cinerea.
Briffon quad. 118.

Mus Rattus. *M. cauda elongata* sub-
nuda, palmis tetradactylis cum un-
guiculo pollicari, plantis pentadac-
tylis. *Lin. syst.*

Ratta. Faun. suec. N° 33. *Br. Zool.* i.
N° 27.

Le Rat. *De Buffon*, vii. 278. *tab.* xxxvi.
Pallas nov. sp. fasc. i. 93. *Lxv. Mus.*

R. of a deep iron-grey color, nearly black: belly cinereous: legs dusky, almost naked: a claw, in the place of a fifth toe, on the fore feet: length, from nose to tail, seven inches; tail near eight.

Inhabits most parts of *Europe*: of late, the numbers much lessened, and in many places extirpated, by the next species: very destructive to corn, furniture, young poultry, rabbits, and pigeons: will gnaw the extremities of infants when asleep: breeds often in a year: brings six or seven young at a time: makes its nest, in a hole near a chimney, of wool, bits of cloth, or straw: will destroy and devour one another: its greatest enemy is the weasel. First introduced by the *Europeans* into *South America**, about the year 1544, in the time of the Viceroy *Blasco Nunnez*. Is now the pest of all that continent.

The word *Rattus* is modern. The *Romans* probably comprehended all kinds under the word *Mus*. The *Welsh* call this *Llygoden Frengig*, or the *French Mouse*, which evinces it not to be a native

* *Garcilasso de la vega*, 384. *Ovalle. Churchill's coll.* iii. 43.

of our island. There is a very minute variety of this kind about the *Volga*, in the deserts of the lower part (for they have not reached the upper) which scarcely weighs seven drams.

I cannot trace the original place of the black rat: none are found in *Sibiria* or *Kamtschatka*.

Rats (I know not of what species) are found in the *Papuas* islands, off *New Guinea* *; but according to the account given by Doctor *Forster* †, the common black rats swarm in *Otabeite*, and other of the *Society* islands, and are also met with in the other groupes of islands, in *New Zealand*, and in *New Holland*. They feed in *Otabeite* on the fruits of the country, and are so bold as even to attack the inhabitants when they are asleep. The natives hold them in the utmost detestation, as unclean animals, and will even avoid killing them, lest they should be polluted by the touch. They will not even eat the bread-fruit these animals should happen to run over.

SOUTH-SEA
ISLANDS.

Mus cauda longissima, supra dilutè fulvus, infra albicans. Le Rat de Bois. xxvii.
Briffon quad. 120. Norway Rat. *Br. Zool.* i. N° 26.
Le-Surmulot. *De Buffon.* viii. 206. tab. *Mus Decumanus.* *Pallas nov. sp. fasc.* i. 91. LEV. MUS,

298. BROWN.

R. with the head, back, and sides, of a light brown color, mixed with tawny and ash-color: breast and belly dirty white: feet naked, and of a dirty flesh-color: fore feet furnished with four toes, and a claw instead of the fifth: length, from nose

* Captain *Forrest*.

† *Observations*, &c. 185, 187.

to tail, nine inches; tail the same: weight eleven ounces: is stronger made than the last.

IN EUROPE.

Inhabits most parts of *Europe*; but was a stranger to that continent 'till the present century: came into *Great Britain* about fifty years ago: not known in the neighborhood of *Paris* half that time. Is the same animal with what is called in the *East Indies* a *Bandicote*, a large rat which burrows under ground: undermines the foundations of houses, even to cause them to fall down*; so probably the species was brought from thence in some of the *Indian* ships†. They swarm in *Petersburg*. Have reached *Prussia*, but not the opposite side of the *Baltic*; at least *Linnaeus* takes no notice of them.

ASIA.

Are numerous in *Persia*, where they burrow in the fields‡. In *Hyrkania* they occupy the deserted holes of the porcupine. Some years ago, an immense migration arrived from the west at the town of *Jaik*; and in the year 1727 an equal number appeared about *Astracan*, filled the whole bed of the *Volga*, and infested the houses to that degree, that nothing could be preserved from them. They have not yet reached *Siberia*. These probably were the *Mures Caspii* of *Ælian*, which he says were little less than *Ichneumons*; and made periodical visits in infinite multitudes to the countries bordering on the *Caspian Sea*: swimming boldly over the rivers, holding by one another's tail||.

* *Purchas*, ii. 1170.

† This may be the species found in *Guinea*, called by *Barbot*, 214, Field Rats; which, he says, are as big as cats. *Bosman* calls them Wild Rats. *Barbot* also mentions another, as long, but slenderer than the former; which the *Negroes* eat, and call *Boutees*, which do great damage to their corn.

‡ *Doctor Pallas*.

|| *Ælian hist. an. xvii. c. 17*.

Burrow, like the water-rat, on the sides of ponds and ditches : swim well, and dive readily : live on grain and fruits, and will destroy poultry and game : encrease fast ; bring from fourteen to eighteen young at a time : are very bold and fierce ; will turn when closely pursued, and fasten on the stick or hand of those who offer to strike them : have destroyed the common black rat in most places. Inhabit fields part of the year, but migrate in great numbers into houses, and do infinite mischief.

LEVERIAN MUSEUM.

Mus Caraco ? *Pallas Nov. sp. fasc. i. 335. tab. xxiii.*

299. AMERICAN.

R. with the upper jaw much longer than the lower : head long : nose narrow and pointed : ears large and naked : whiskers fine, but long : tail naked, and like that of the black rat, but not so long.

Color a deep brown ; on the belly inclines to ash-color : hair ruder than in the preceding species.

In size larger than the black, lesser than the brown rat.

Inhabits *North America* ; but I am uncertain whether it is entirely wild, or whether it has yet found its way into houses and out-houses. Mr. *Bartram* * mentions the rat (but does not determine the species) which lives among the stones and caverns in the *Blue Mountains*, far from mankind : comes out at night, and makes a terrible noise ; but in very severe weather keeps silent within its holes.

The MUS CARACO of Doctor *Pallas* is so nearly allied to this species, that I do not at this time venture to separate them : the

β. CARACO.

* In *Kalm's trav.* ii. 48.

whiskers of the former seem rather shorter, and the tail, in proportion to its length, thicker; but the thinness of that part might, in the specimen in the LEVERIAN MUSEUM, arise from its being dried; neither could I examine it thoroughly, as it was within a glass case. The *Caraco* has not as yet appeared to the west of the *Jenesei*, but swarm about and beyond lake *Baikal*. It has much agreement with the last kind, being, as the *Mongals* report, conversant among lakes and waters, and is called by them *Characho*, and *Jike-Cholgonach* or the *Great Mouse*. It burrows in the banks of rivers: is supposed to extend to *China*, and to be very noxious there.

300. WATER.

Le Rat d'Eau. *Belon. Aquat.* 30. tab. xxxi.

Mus aquatilis. *Agricola An. Subter.* 488. *Gesner quad.* 732. *Raii syn. quad.* 217. *Klein quad.* 57.

Wasser-maus. *Kramer Austr.* 316.

Mus Amphibius. M. cauda elongata pilosa plantis palmatis. *Lin. syst.* 82. *Faun. suec.* N° 32. *Pallas Nov. sp.*

fasc. i. 20.

M. cauda longa pilis supra ex nigro et flavescence mixtis, infra cinereis vestitus. *Briffon quad.* 124.

Le Rat d'Eau. *De Buffon*, vii. 348. tab. xliii.

Water Rat. *Br. Zool.* i. N° 27. *LEV. Mus.*

R. with a thick blunt nose: ears hid in the fur: eyes small: teeth yellow: on each foot five toes; inner toe of the fore foot very small; the first joint very flexible: head and body covered with long hairs, black mixed with a few ferruginous hairs: belly of an iron grey: tail covered with short black hairs; the tip whitish: weight nine ounces: length, from nose to tail, seven inches; tail only five: shape of the head and body more compact than the former species*.

* It has some resemblance to the Beaver, which induced *Linnaeus*, in the first edition of his *Fauna Suecica*, to style it *Castor cauda lineari tereti*.

Inhabits

Inhabits *Europe*, the north of *Asia*, and *North America* *: burrows in the banks of rivers, ponds, and wet ditches: feeds on small fish, and the fry of greater; on frogs, insects, and roots: is itself the prey of pike: swims and dives admirably, though it is not web-footed, as Mr. *Ray* supposed, and *Linnaeus* copied after him: brings six young at a time. This animal and the Otter are eaten in *France* on *maigre* days.

Mus domesticus communis seu minor.	daetylis. <i>Lin. syst.</i> 83. <i>Pallas Nov.</i>	301. Mouse.
<i>Gesner quad.</i> 714. <i>Raii syn. quad.</i>	<i>sp. fasc.</i> i. 95.	
218.	Mus. <i>Faun. suec.</i> N ^o 34.	
Mus minor, musculus vulgaris. <i>Klein</i>	Mus cauda longissima, obscure cinea-	
<i>quad.</i>	reus, ventre subalbescence. <i>Briffon</i>	
<i>Maus. Kramer Austr.</i> 316.	<i>quad.</i> 119.	
Mus musculus. M. cauda elongata,	<i>La Souris. De Buffon, vii.</i> 309. <i>tab.</i>	
palmis tetradaetylis, plantis penta-	<i>lix. Br. Zool.</i> i. N ^o 30. <i>LEV. Mus.</i>	

AN animal that needs no description: when found white, is very beautiful, the full bright eye appearing to great advantage amidst the snowy fur.

Inhabits all parts of the world, except the *Arctic*: follows mankind.

* *Lawson hist. Carolina*, 122. He also mentions another, which he calls the *Marsh Rat*, being more hairy than the common rat; but apparently is the same with this. Those of *Canada* vary to tawny and white. Vide *De Buffon*, xiv. 401. xv. 146.

302. FIELD.

Mus agrestis minor. *Gesner quad.* 733.Mus domesticus medius. *Raii syn. quad.* 218.Maus mit weissen bauch. *Kramer Austr.* 317.Mus cauda longa supra e fusco flavescens, infra ex albo cinerescens. *Brisson quad.* 123.Mus sylvaticus. M. cauda longa, palmis tetradactylis, plantis pentadactylis, corpore griseo pilis nigris abdomine albo. *Lin. syst.* 84. *Pallas Nov. sp. fasc.* i. 94. *Faun. Suec.* N° 36.Le Mulot. *De Buffon*, vii. 325. *tab. xli.*Long-tailed Field-mouse. *Br. Zool.* i. N° 28. *LEV. MUS.*

R. with full and black eyes : head, back, and sides of a yellowish brown, mixed with some dusky hairs : breast of an ochre-color : belly white : length, from the tip of the nose to the tail, four inches and a half : tail four inches, slightly covered with hair.

Inhabits *Europe* : found only in fields and gardens : feeds on nuts, acorns, and corn : forms great magazines of winter provision : hogs, tempted by the smell, do much damage in the fields, by rooting up the hoards : makes a nest for its young very near the surface, and often in a thick tuft of grass : brings from seven to ten at a time : called, in some parts of *England*, *Bean Mouse*, from the havock it makes among the beans when just sown.

Is common in *Russia*, and about the *Uralian* chain, but not beyond.

a. AMERICAN R. with very long whiskers, some white, others black : ears large, naked, and open : from the head to the tail, along the middle of the back, a broad dark stripe, ferruginous and dusky : the cheeks, space beneath the ears, and sides, quite to the tail, orange-colored : under side, from nose to tail, of a snowy whiteness : feet white : hind legs longer than those of the

the *European* kind : tail dusky above, whitish beneath. *New York.*

The less long-tailed Field-Mouse. *Br. Zool. ii. App. 498. Lev. Mus.*

303. HARVEST.

R. with eyes less prominent than those of the former : ears prominent : of a full ferruginous color above, white beneath : a strait line along the sides divides the colors : tail a little hairy : length, from nose to tail, two inches and a half : tail two inches : weight one-sixth of an ounce.

Inhabits *Hampshire* ; where it appears in greatest numbers during harvest : never enters houses ; but is carried into the ricks of corn in the sheaves ; and often hundreds are killed on breaking up the ricks : during winter, shelters itself under ground : burrows very deep, and forms a warm bed of dead grass : makes its nest for its young above ground, between the straws of standing corn ; it is of a round shape, and composed of blades of corn : brings about eight young at a time.

Mus orientalis. Seb. Mus. ii. 22. tab. xxi. fig. 2.

M. cauda mediocri subnuda, palmis tetradactylis, plantis pentadactylis, corporis striis punctatis. Lin. syst. 84.

M. cauda longa, striis corporis longitudinalibus & punctis albis. Mus. Ad. Fred. 10.

Mus cauda longa, rufus, lineis in dorso albicantibus, margaritarum æmulis. Brisson quad. 124.

304. ORIENTAL.

R. with round naked ears : of a grey color : the back and sides elegantly marked with twelve rows of small pearl-colored spots, extending from the head to the rump : tail the length of the body : in size, half that of a common mouse.

Inhabits

Inhabits *India*. In the same country, and in *Guinea*, is another very small species, which smells of musk. The *Portuguese* living in *India* call it *Cherofo*, and say its bite is venomous. *Boullaye la Gouz.* 256. *Barbot's Guinea*, 214.

305. BARBARY. *Mus Barbarus*. *M. cauda mediocri corpore fusco, striis decem pallidis, pal-* *mis tridactylis, plantis pentadactylis.*
Lin. syst. tom. i. pars ii. addenda.

LESS than the common mouse : of a brown color : marked on the back with ten slender streaks : three toes with claws on the fore feet, with the rudiments of a thumb : tail of the length of the body.

Inhabits *Barbary*.

306. MEXICAN. *Mus Mexicanus maculatus.* *Seb. Mus. 74. tab. xlv. fig. 5.*

R. of a whitish color, mixed with red : head whitish : each side of the belly marked with a great reddish spot.

According to *Seba* inhabits *Mexico*.

307. VIRGINIAN. *Mus agrestis Americanus albus.* *Seb. Mus. i. 76. tab. xlvii. fig. 4.*

R. with pointed ears and nose ; the last black : whiskers long : fur very short : limbs very weak and slender : tail at the base thick, growing gradually so from the rump, so that the junction cannot be distinguished ; decreases gradually, and becomes

comes very long and slender; ends in a point, and is in all parts beset with long hair.

Color of this animal universally white.

According to *Seba*, found in *Virginia*. The thickness at the base of the tail is its specific difference.

PLACE,

Mus Vagus. Pallas Nov. sp. fasc. i. 327. tab. xxii. fig. 2.

308. WANDERING.

R. with an oblong head: blunt nose, with a red tip: cutting teeth yellow; the upper truncated: eyes placed midway between the nose and the ears: ears large, oval, naked; the tip dusky and downy: limbs slender: instead of a thumb, on the fore feet, is a conic wart: tail longer than the body, and very slender.

Color above a pale ash, mixed and undulated with black: along the back to the tail is a black line: ends of the limbs whitish.

Length, from nose to tail, between two and three inches; the tail near three.

Inhabits the whole *Tartarian* desert; and at certain times wanders about in great flocks, and migrating from place to place during night. Observed as high as lat. 57, about the *Irtish*, and between the *Oby* and *Jenesei*, in birch woods: is of a very chilly nature; soon becomes torpid, and sleeps rolled up in the cold night, even of the month of *June*. Lives in fissures of rocks, under stones, and in hollow fallen trees: has carnivorous inclinations; for on being placed in a box with a mouse of another species, it killed and devoured part, notwithstanding it had feeds

seeds to feed on. Is called by the *Tartars*, *Dshickis-sitskan*, or *gregarious Mouse*.

309. BEECH.

Mus Betulinus. *Pallas Nov. sp. fasc. i. 332. tab. xxii. fig. 1.*

R. with a sharp nose, with the end red : ears smaller than those of the former, brown, bristly at the end : limbs very slender : toes long, slender, and very separable : tail very long and slender, much exceeding the length of the body ; brown above, white below.

Color of the head and body a cinereous rust, with a few dusky hairs interspersed : breast and belly, pale ash : along the top of the back is a dusky line.

SIZE.

Less than the former.

PLACE.

Inhabits the birch woods about the plains of *Ischim* and *Baraba*, and between the *Oby* and *Jenesei* : lives in the hollows of decayed trees : very tender, and soon grows torpid in cold weather : runs up trees, and fastens to the boughs with its tail ; and, by assistance of its slender fingers, adheres to any smooth surface : emits a weak note.

310. RUSTIC.

Mus Agrarius. *Pallas Nov. sp. fasc. i. 341. tab. xxiv. A. Itin. i. 454.*
Mus Rubeus. *Schwenkfeldt Anim. Siles. 114.*

R. with a sharp nose : oblong head : small ears lined with fur : color of the body and head ferruginous, with a dusky line along the back : belly and limbs whitish : above each hind foot is a dusky circle.

A little.

A little less than the field mouse. The tail only half the length of the body.

SIZE.

Inhabits the temperate tract of *Russia*, and *Siberia*, as far as the *Irtish*: in the former, chiefly about villages and corn-fields; in the latter, in woods. In *Russia* is often migratory, and often very noxious to the grain: it is called there *Sbitnik*, or the *Corn Mouse*, for it abounds in the sheafs and ricks. At times they wander in vast multitudes, and destroy the whole expectations of the farmer. This plague did in particular, in the years 1763 or 1764, make great ravages in the rich country about *Casan* and *Arsk*; but came in such numbers as to fill the very houses, and became through hunger so bold as to steal even the bread from the table before the very faces of the guests. At approach of winter they all disappeared.

PLACE.

They make their retreats a little below the surface, which in those places appears elevated: each has a long gallery, with a chamber at the end, in which they place their winter food, which consists of various sorts of seeds.

Mus minutus. *Pallas Nov. sp. fasc. i. 345. tab. xxiv. B. Hin. i. 454.*

311. LITTLE.

R. with a sharpish nose: dusky, with a whiteness at the corner of the mouth: ears small, half hid in the fur: body more slender than that of the common mouse: tail shorter and more slender.

Color, a deep tawny above, white below: feet grey.

The least of the genus; little more than two inches long from nose to tail; weight not half a dram.

SIZE.

3 M

Accompanies

PLACE.

Accompanies the former species, in corn-fields and barns ; also plentiful in the birch-woods. More males among them than females. Seem to wander without any certain places for their nests.

** With tails of middle length.

312. Rock.

Mus Saxatilis. *Pallas Nov. sp. fasc. i. 255. tab. xxiii. B.*

R. with an oblong head : nose rather pointed : ears rising above the fur ; oval, downy, at the edges brown : whiskers short : limbs strong : tail not half so long as the body, with a few hairs scattered over it.

Color above, brown slightly mixed with grey : sides incline more to the last color : belly of a light cinereous : snout dusky, surrounded with a very slender ring of white.

SIZE.

Length four inches : tail one and a half.

PLACE.

Inhabits the country beyond lake *Baikal*, and the *Mongolian* desert : makes its burrows in a wonderful manner, considering the weakness of its feet, between the crannies of the rocks which had been forced open by violence of frost, or the insinuation of roots of plants : it chuses its habitation amidst the rudest rocks, and lives chiefly on the seeds of *Astragali*. The burrows consist, firstly, of a large winding oblique passage, through which the animal flings out the earth : secondly, of one or more holes pointing downwards, which likewise wind among the rocks ; and at their bottom is the nest, formed of soft herbs.

Mus

Mus Œconomus. *Pallas Nov. sp. fasc.*
i. 234. tab. xiv. A. *Itin.* iii. 692.

Tegoulitchick. *Descr. Kamtschatka*, 313. ŒCONOMIC.
Engl. ed. 104.

R. with small eyes: ears naked, and usually hid in the fur: limbs strong: teeth very tawny: color black and yellow, intimately mixed; dusky on the back; from throat to tail hoary; beneath the hair a dark down; ends of the feet dusky.

Length four inches and a quarter; of the tail, more than an inch: in form of body like the meadow mouse, but is rather longer, and the belly bigger.

Inhabits in vast numbers all *Siberia*, especially the eastern parts, and *Kamtschatka*; and even found within the *Arctic* circle.

They are called by Doctor *Pallas*, *Mures Œconomi* or Œconomic Mice, from their curious way of living. They inhabit damp soils, and shun the sandy; form burrows beneath the upper crust of the turfy ground; and have in them many chambers, and several entrances. In the first they form magazines for winter food, consisting of various sorts of plants, which they collect in summer with great pains; and in sunny days draw them out of their nests, in order to give them a more effectual drying. During summer they never touch their hoards, but live on berries, and other vegetable productions.

They in certain years make great migrations out of *Kamtschatka*; they collect in the spring, and go off in incredible multitudes. Like the *Lemmus*, they go on in a direct course, and nothing stops their progress, neither rivers nor arms of sea: in their passage they often fall a prey to the ravenous fishes; but on land are safe, as the *Kamtschatkans* pay a superstitious regard

SIZE.

PLACE.

MANNERS.

for them; and when they find them lying, weak or half dead with fatigue, on the banks, after passing a river, will give them all possible assistance. They set out on their migration westward. From the river *Pengin* they go southward, and about the middle of *July* reach *Ochotska* and *Judoma*, a tract of amazing extent. They return again in *October*. The *Kamtschatkans* are greatly alarmed at their migrations, as they presage rainy seasons, and an unsuccessful chase; but on their return, expresses are sent to all parts with the good news.

Many fables are related of them, such as that they cover their provisions with poisonous herbs before their migrations, in order to destroy other rats which may attempt to plunder their magazines; and if by chance they should be pillaged, they will strangle themselves through vexation, by squeezing their necks between the forks of shrubs; for this reason the natives never take away all their store, but leave part for their subsistence, or leave in its place some caviare, or any thing that will serve for their support.

314. RED.

Mus Rutilus. *Pallas Nov. sp. fasc. i. 146. tab. xiv. B.*

R. with the nose and face very bristly: ears, like those of the former, naked, except the tip, on which is a rusty down: tail full of hair: color, from the middle of the forehead, along the back, to the rump, an uniform pleasant tawny red: the sides light grey and yellow: under side of the body whitish: feet white: tail dusky above, light below.

Size.

Length not four inches; tail above one.

Inhabits

Inhabits *Siberia*, from the *Oby* eastward to *Kamtschatka*, in woods and mountains; and also within the *Arctic* circle. Creeps sometimes into houses and granaries: lives abroad under logs of wood, or trunks of trees: they wander out the whole winter, and are very lively even amidst the snows: eat any thing which comes in their way; even flesh.

PLACE.

A variety is found about *Casan*, a little lesser than the *Siberian* kind, and the tail longer and more slender: the red on the back is not so much diffused as in the other. The same kind has also been discovered in the botanical garden at *Gottengen*.

Mus Alliaris. Pallas Nov. sp. fasc. i. 252. tab. xiv. C.

315. GARLIC.

R. with great open naked ears, very apparently out of the fur: tail cloathed with hair: color on the back cinereous, mixed with longer hairs tipped with dusky grey: sides of a whitish ash: breast, belly, and feet white: tail marked along the top with a dusky line, the rest white.

Length a little above four inches; tail one and a half.

SIZE.

Inhabits the country about the *Jenesei* and *Lena*: is frequent in the subterraneous magazines of bulbous roots, especially the *Allium angulatum*, or angular garlic, formed by the *Siberian* peasants.

PLACE.

R. with the nose a little extended: four toes on the fore feet, with a tubercle instead of a thumb: five toes on the hind feet: round ears covered with fur: tail of a middling length, and hairy:

316. SORICINE.

hairy : color of the upper part of the body yellowish grey : belly white.

PLACE.

Inhabits the neighborhood of *Straßbourg*. Discovered by Professor *Herman*.

*** With short tails.

317. LEMMUS.

Lemmar vel Lemmus. *Olai magni de gent. Septentr.* 358.

Leem vel Lemmer. *Gesner quad.* 731.

Mus Norvegicus vulgò Leming. *Worm.*

Mus. 321, 325. *Scheffer Lapland*, 136.

Pentop. Norway, ii. 30. *Strom Sondmor.* 154. *Raii syn. quad.* 227.

Sable-mice. *Pb. Tr. abridg.* ii. 875.

Cuniculus caudatus, auritus, ex flavo,

rufo et nigro variegatus. *Briffon quad.* 100.

Mus Lemmus. M. cauda abbreviata, pedibus pentadactylis, corpore fulvo nigro vario. *Lin. syst.* 80. *Pallas nov. sp. fasc.* i. 186. *tab. xii. A. & B.*

Fial-Mus, Sabell-Mus. *Lappis.*

Lummick. *Faun. Suec.* N° 29.

Le Leming. *De Buffon*, xiii. 314.

R. with two very long cutting teeth in each jaw : head pointed : long whiskers ; six of the hairs on each side longer and stronger than the rest : eyes small and black : mouth small : upper lip divided : ears small, blunt, and reclining backwards : fore legs very short : four slender toes on the fore feet, covered with hairs ; and in the place of the thumb a sharp claw, like a cock's spur : five toes behind : the skin very thin : the color of the head and body black and tawny, disposed in irregular blotches : belly white, tinged with yellow.

SIZE.

Length, from nose to tail, about five inches ; in large specimens a little more : the tail about half an inch. Those of *Russian Lapland* are much less than those of the *Norwegian* or *Swedish*.

PLACE.

Inhabits *Norway* and *Lapland*, the country about the river

Oyb,

Oby, and the north extremity of the *Uralian* chain. They appear in numberless troops, at very uncertain periods, in *Norway* and *Lapland*: are the pest and wonder of the country: they march like the army of locusts, so emphatically described by the prophet *Joel*: destroy every root of grass before them, and spread universal desolation: they infect the very ground, and cattle are said to perish which taste of the grass which they have touched: they march by myriads, in regular lines: nothing stops their progress, neither fire, torrents, lake, or morasses. They bend their course strait forward, with most amazing obstinacy; they swim over the lakes; the greatest rock gives them but a slight check, they go round it, and then resume their march directly on, without the least deviation: if they meet a peasant, they persist in their course, and jump as high as his knees in defence of their progress: are so fierce as to lay hold of a stick, and suffer themselves to be swung about before they quit their hold: if struck, they turn about and bite, and will make a noise like a dog.

They feed on grass, on the rein-deer liverwort, and the catkins of the dwarf birch. The first they get under the snow, beneath which they wander during winter; and make their lodgements, and have a spiracle to the surface for the sake of air. In these retreats they are eagerly pursued by the *Arctic* foxes.

They make very shallow burrows under the turf; but do not form any magazines for winter provision: by this improvidence it seems that they are compelled to make these numerous migrations, in certain years, urged by hunger to quit their usual residences.

They breed often in the year, and bring five or six young at a time:

time : sometimes they bring forth on their migration ; some they carry in their mouths, and others on their backs.

They are not poisonous, as is vulgarly reported ; for they are often eaten by the *Laplanders*, who compare their flesh to that of squirrels.

Are the prey of foxes, lynxes, and ermines, who follow them in great numbers : at length they perish, either through want of food, or by destroying one another, or in some great water, or in the sea. They are the dread of the country : in former times spiritual weapons were exerted against them ; the priest exorcised, and had a long form of prayer to avert the evil * : happily it does not occur frequently ; once or twice in twenty years : it seems like a vast colony of emigrants, from a nation over-stocked ; a discharge of animals from the great *Northern* hive, that once poured out its myriads of human creatures upon Southern *Europe*. Where the head-quarters of these quadrupeds are, is not very certainly known : *Linnaeus* says, the *Norwegian* and *Lapland Alps* ; *Pontoppidan* seems to think, that *Kolens* rock, which divides *Nordland* from *Sweden*, is their native place : but wherever they come from, none return : their course is predestinated, and they pursue their fate.

* *Worm. Mus.* 383. where the whole form is preserved. It was once seriously believed that these animals were generated in the clouds, and fell in showers upon the ground : *Per tempestates et repentinos imbres e cælo decidant, incompertum unde, an ex remotioribus insulis, et huc vento delatæ, an ex nubibus fæculentis natæ deferantur.* *Olai Magni de Gent. Septentr.* 358.

Mus torquatus. Pallas Nov. sp. fasc. i. 205.

318. RINGED.

R. with a blunt nose: ears hid in the fur: legs strong and short: soles covered with hair: claws very strong, hooked at the end: the hair on the whole body very fine.

Color of the upper part of the body ferruginous, mixed with grey and yellow; sometimes pale grey, clouded with undulated lines of dusky rust-color: from the ears, down each side of the cheeks, is a bed of the same color, and behind that a stripe of white, so that the neck appears encircled with a collar; behind these again is another bed of the former color.

Length to the tail little more than three inches; of the tail one; at its end is a hard tuft of bristles.

Size.

Inhabits the northern parts about the river *Oby*. Makes its burrows, with many passages, beneath the turfy soil. The nests are filled with rein-deer and snowy liverworts. They are said to migrate at the same seasons with the *Lemmus*.

Place.

Mus Hudsonias. Pallas Nov. sp. fasc. i. 208.

319. HUDSON'S.

R. with slender brown whiskers: very fine long soft hair: cinereous, tinged with tawny, on the back, with a dusky stripe running along its middle: along each side a pale tawny line: belly pale cinereous: limbs very short: fore feet very strong: the two middle claws of the male very strong, thick, and compressed; divided at the end: those of the supposed females (of the

3 N

lesser

leffer skins) small: tail very short, terminated by some stiff bristles.

Size.

Length about five inches. Described by Doctor *Pallas*, from some skins sent to him from *Labrador*, one of which he favored me with.

320. HARE-
TAILED.

Mus Lagurus. Pallas Nov. sp. fasc. i. 210. tab. xiii. A. Itin. ii. App. 704.

R. with a long head, and blunt nose: rough lips, and swelling out: ears short, round, flat, just appearing out of the fur: limbs short and slender: tail the shortest of all the genus, scarcely appearing out of the hairs: fur very soft and full, cinereous on the upper part, mixed with dusky: along the back is a dark line: belly and feet of a pale ash-color.

Size.

Length between three and four inches.

Place.

MANNERS.

Inhabits the country above the *Yaik*, *Irtish*, and *Jenessei*. They love dry soils, but firm; in which they make burrows with two entrances; one oblique, leading to the nest, the other perpendicular, but both end at it, or unite beyond; the nest is formed of grass. Usually the male has a different habitation, but sometimes they live together. When more males than one get together, they fight, and the conqueror devours the vanquished; the mate of the deceased instantly submits to the embraces of the former, even though pregnant. They are very salacious, and bring their young frequently in the air: they bring six at a time: emit often a musky smell when in heat: the males fight sitting up, and bite very hard, and make a noise by striking their teeth together. They sleep very much, and like the Marmots, rolled up;

up; and, like them, are slow in their motions: are very fond of the dwarf iris, but feed on all sorts of seeds: they have also carnivorous appetites, for they will devour one another, and even others of different species, of the same size with themselves; for which reason few other kinds live near them. They migrate in great troops; therefore are called by the *Tartars*, *Dshilkis-Zizchan*, the *Rambling Mouse*.

Mus socialis. *Pallas Nov. sp. fasc. i. 218. tab. xiii. B. Itin. ii. App. 705.*

321. SOCIAL.

R. with a thick head and blunt nose: ears oval, naked: limbs short and strong: tail slender: nose dusky: upper part of the body a light grey; palest on the sides: sides, shoulders, and belly, white.

Length above three inches; tail half an inch.

Inhabits the *Caspian* desert, between the *Volga* and the *Yaik*, and the country of *Hyrkania*. They live in sandy, low, and herby places, in large societies; and in many places the whole ground is covered with the little hills formed by the earth they cast out of their burrows: the burrows are about a span in depth, with eight or more passages. They are always found to live in pairs, or with a family. They live much on tulip-roots. They rarely appear in autumn, but swarm in the spring. They are said either to migrate or change their places in autumn, or to conceal themselves among the bushes; and in the winter to shelter in hay-ricks. They breed later than other kinds. Are the prey of weasels, fitchets, crows, and vipers.

SIZE.

PLACE.

MANNERS.

322. MEADOW.

Mus agrestis capite grandi brachiurus.

Raii syn. quad. 218.

Mus terrestris. M. cauda mediocri subpilosa, palmis subtetradactylis, plantis pentadactylis, auriculis vellere brevioribus. Lin. syst. 82.

Molle. Faun. suec. N° 31*.

Mus cauda brevi, pilis e nigricante & fordidè luteo mixtis in dorso, & fatu-

ratè cinereis in ventre vestitis. Brisson quad. 125.

Le Campagnol. De Buffon, vii. 369. tab. xlvii.

The short-tailed Field-mouse. Br. Zool. i. N° 31.

Erdzeisl. Kramer Austr. 316.

Mus arvalis. Pallas Nov. sp. fasc. i. 78. LEV. Mus.

R. with a large head : blunt nose : ears short, and hid in the fur : eyes prominent : tail short : color of the head and upper part of the body ferruginous, mixed with black : belly deep ash-color : feet dusky.

SIZE.

Length, from nose to tail, six inches ; tail only one and a half, thinly covered with hair, terminated by a small tuft.

PLACE.

Inhabits *Europe* : also in great abundance in *Newfoundland*, where it does much mischief in the gardens : in *England*, seldom infests gardens : makes its nest in moist meadows : brings eight young at a time : has a strong affection for them : resides under ground : lives on nuts, acorns, and corn.

* The species, N° 30. *Faun. suec.* described by the style of *Mus cauda abbreviata, corpore nigro fusco, abdomine cinerescente*, seems the same with this.

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II



I



I. Hamster N° 324 II. Black Hamster P. 462

Mus gregarius. *M. cauda corpore triplo brevior subpilosa, corpore griseo, subtus pedibusque albis.* *Lin. syst.* 84.

Mus gregalis. *Pallas Nov. sp. fasc. i.* 79.

323. GREGARIOUS.

R. with a small mouth and blunt nose: ears naked, and appearing above the fur: hair on the upper part of the body black at the roots and tips, ferruginous in the middle: throat, belly, and feet whitish: tail thrice as short as the body, covered with thin white hairs; the end black and ash-color: is a little larger than the common mouse.

Inhabits *Germany* and *Sweden*: eats sitting up: burrows, and lives under ground.

*** Short-tailed.

With pouches in each jaw.

Hamster, Cricetus. Agricola An. Subter. 486. *Gesner quad.* 738. *Raii syn. quad.* 221. *Meyer An. i. tab.* lxxxi. lxxxi.

Skrzeczek, Chomik. Rzaczinski Polon. 232.

Porcellus frumentarius. Schwenkfeld Theriotroph. 118.

Krietsch, Hamster. Kramer Austr. 317. *Pallas Nov. sp. fasc. i.* 83. *Zimmerman.* 343. 511.

Mus cricetus. M. cauda mediocri, auriculis rotundatis, corpore subtus nigro, lateribus rufescentibus maculis tribus albis. *Lin. syst.* 82.

Glis ex cinereo rufus in dorso, in ventre niger, maculis tribus ad latera albis. *Briffon quad.* 117.

Le Hamster. De Buffon, xiii. 117. *tab.* xiv. xvi. *Suppl.* iii. 183.

German Marmot. Syn. quad. N° 200. *LEV. Mus.*

324. HAMSTER.

R. with large rounded ears: full black eyes: color on the head and back, reddish brown: cheeks red: beneath each ear a white spot, and another behind; a fourth near the hind legs:

legs: breast, upper part of the fore legs, and the belly, black: tail short, almost naked: four toes, and a fifth claw, on the fore feet; five behind: about nine inches long; tail three.

SIZE.

The males are always bigger than the females; some weigh from twelve to sixteen ounces: the females seldom exceed four or six. They vary sometimes in color. About *Casan* is found frequently a family entirely black.

PLACE.

Inhabits *Austria*, *Silesia*, and many parts of *Germany*, *Poland*, and *Ukraine*; in all the southern and temperate parts of *Russia* and *Siberia*; and even about the river *Jenesei*, but not farther to the east. They are also found in the *Tartarian* deserts, in sandy soil, disliking moist places. They are very fond of such spots which abound with liquorice, whose seeds they feed on. They swarm so in *Gotha*, that in one year 11,564, in another 54,429, and in a third 80,139 of their skins were delivered at the *Hotel de Ville* of the capital*, these animals being proscribed on account of their vast devastations among the corn.

MANNERS.

They are very destructive to grain; eating great quantities, and carrying still more to its hoard: within its cheeks are two pouches, receptacles for its booty, which it fills till the cheeks seem ready to burst: the *Germans* therefore say of a very greedy fellow, *Er frisst wie ein Hamster*.

They live under ground; first form an entrance, burrowing down obliquely: at the end of that passage the male sinks one perpendicular hole; the female several: at the end of these are formed various vaults, either as lodges for themselves and young, or store-houses for their food: each young has its different apart-

* *De Buffon*, *Suppl.* iii. 185. quoted from Mr. *Salzer*.

ment; each sort of grain its different vault; the first they line with straw or grafs: these vaults are of different depths, according to the age of the animal; a young *Hamster* makes them scarcely a foot deep; an old one sinks them to the depth of four or five; and the whole diameter of the habitation, with all its communications, is sometimes eight or ten feet.

The male and female have always separate burrows; for, excepting their short season of courtship, they have no intercourse. The whole race is so malevolent as to constantly reject all society with one another. They will fight, kill, and devour their own species, as well as other lesser animals; so may be said to be carnivorous as well as granivorous. If it happens that two males meet in search of a female, a battle ensues; the female makes a short attachment to the conqueror, after which the connexion ceases. She brings forth two or three times in a year, and brings from sixteen to eighteen at a birth. Their growth is very quick; and at about the age of three weeks, the old one forces them out of the burrows to take care of themselves: she shews little affection for them; for if any one digs into the hole, she attempts to save herself by burrowing deeper into the earth, and totally neglects the safety of her brood: on the contrary, if she is attacked in the season of courtship, she defends the male with the utmost fury.

They lie torpid from the first colds to the end of the winter; and during that time are seemingly quite insensible, and have the appearance of being dead; their limbs stiff, and body cold as ice: not even spirits of wine, or oil of vitriol, poured in to them, can produce the least mark of sensibility. It is only in places beyond the reach of the air in which it grows torpid; for the severest cold

cold on the surface does not affect it, as has been proved by experiment.

In its annual revival, it begins first to lose the stiffness of its limbs; then breathes deeply, and by long intervals: on moving its limbs, it opens its mouth, and makes a rattle in the throat; after some days it opens its eyes, and tries to stand; but makes its efforts like a person much concerned in liquor; at length, when it has attained its usual attitude, it rests for a long time in tranquillity, to recollect itself, and recover from its fatigue.

They begin to lay in their provisions in *August*; and will carry grains of corn, corn in the ear, and peas and beans in the pods, which they clean in their holes, and carry the husks carefully out: the pouches above mentioned are so capacious as to hold a quarter of a pint *English*. As soon as they have finished their work, they stop up the mouth of their passage carefully. As they lie torpid during the whole severe season, these hoards are designed for their support on their first retreat, and in the spring and beginning of the summer, before they can supply themselves in the fields. In winter, the peasants go what they call a *Hamster-nesting*; and when they discover the retreat, dig down till they discover the hoard, and are commonly well paid; for, besides the skins of the animals, which are valuable furs, they find commonly two bushels of good grain in the magazine. These animals are very fierce; will jump at a horse that happens to tread near them, and hang by its nose, so that it is difficult to disengage them: they make a noise like the barking of a dog. In some seasons are so numerous as to occasion a dearth of corn. Pole-cats are their greatest enemies; for they pursue them into their holes, and destroy numbers.

It

It is remarkable, that the hair sticks so close to the skin, as not to be plucked off without the utmost difficulty.

In my former edition I supposed the *Vormela* of *Agricola* * to have been a variety of this kind. He says it is less; the whole body marked with yellow and tawny spots; the tail cinereous, and white tipped with black; but as he adds that it is a palm and a half long, I must refer it to another species, or perhaps genus; for it is not unlikely but that it is the same with the *Sarmatian Weesel*, N° 196.

325. VORMELA.

Mus accedula. *Pallas Nov. sp. fasc. i. 257. tab. xviii. A.*
Mus migratorius. *Pallas Itin. ii. App. 703.*

326. YAIK.

R. with a thick snout: blunt nose: very fleshy lips: upper lip deeply divided: upper fore teeth small, yellow, convex outwards, truncated; the lower slender, pointed: eyes large: ears great, oblongly oval, high above the fur, naked: tail very short, cylindrical: color about the face white: upper part of the body of a cinereous yellow, mixed with brown; below of a hoary whiteness.

Length near four inches.

Inhabits the deserts about the *Yaik*: runs about during night, when it quits its burrow. It is said by the *Cossacks* to migrate in great numbers out of the deserts, and to be followed by multitudes of foxes, presaging a good hunting-season: but Doctor *Pallas* doubts whether this species, or any of the pouched kinds,

SIZE.

PLACE AND
MANNERS.

* *De anim. subter.* 486.

go far from their homes, as those receptacles for provision are calculated only for short excursions.

327.

Mus Phæus. Pallas Nov. sp. fasc. i. 261. tab. xv. A.

R. with the forehead much elevated: edges of the eyelids black: ears naked, oval, standing far out of the fur: tail very short, slightly furred: color above, a hoary ash-color, with long dusky hairs, running from the neck, along the middle of the back, to the tail: the sides whitish: the circumference of the mouth, under side of the body, and the extremities of the limbs, of a snowy whiteness.

SIZE.

Length about three inches and a half.

PLACE.

Inhabits the deserts of *Astracan*, about *Zarizyn*; and is taken in traps frequently in winter, in places near to stables and out-houses. It is also common among the *Hyrceanian* mountains, about the *Persian* villages, where it commits great ravages among the rice. It does not grow torpid during winter, as is proved by the stomachs of such which are taken in that season, being found full of food.

328. SAND.

Mus arenarius. Pallas Nov. sp. fasc. i. 266. tab. xvi. A. Itin. ii. App. 704.

R. with a longish head and snout, and sharp nose: the pouches very large: ears great, oval, brownish: body short: nails white: color of the upper part of the body hoary: sides, belly, limbs, and tail, of a pure white.

Length

Length near four inches; tail above one.

Inhabits the sandy plains of the *Baraba*, not far from the river *Irtish*. The males inhabit a very deep burrow, with a single entrance, at whose bottom is the nest, made of the *Elymus arenarius*, and other plants: other burrows, perhaps of the females, had three entrances: in another, discovered in *May*, were five young in three nests; two were preserved alive; were untameable very fierce, and would fling themselves on their back, and defend themselves by biting: they went out only in the night, and hid themselves during day in their fodder.

SIZE.

PLACE.

Mus songarus. Pallas Nov. sp. fasc. i. 269. tab. xvi. B. Itin. ii. App. 703.

329. SONGAR.

R. with a thick head and blunt nose: ears oval, very thin, appear above the fur, are very slightly cloathed with hoary down: tail very short, blunt, thick, and hairy: color above, a cinereous grey, marked along the back, from head to tail, with a black line: sides of the head and body marked with great white spots in certain parts, running into one another, in others bounded with brown: belly and legs white.

Length three inches.

Inhabits, with the former, the *Baraba*, usually in the dry sandy saline places: dwells during summer in the shallow new-begun burrows; those of the females have a very deep oblique passage at the end of it: the nest formed of herbs; in one of which were seven young; from this nest ran another deep hole, perhaps the winter retreat. The young were much grown, yet blind. Doctor *Pallas* preserved them long: they grow soon familiar, contrary

SIZE.

PLACE.

to the nature of other mice; would feed from his hand, lap milk, and when placed on a table, shew no desire of running away; but were slower in all their motions than the other species. They washed their faces with their paws, and eat sitting up: wandered about in the day and morning: slept all night rolled up: seldom made any cry, and when they did, it was like that of a bat.

330. BARABA.

Mus furunculus. *Pallas Nov. sp. fasc. i. 273.*
Mus Barabensis. *Itin. ii. App. 704.*

R. with a sharp nose: large broad naked ears, dusky edged with white: tail longer than that of the preceding: color of the upper part of the body cinereous yellow, growing paler towards the sides: below of a dirty white: from the hind part of the neck extends a black line, reaching not quite to the tail: tail white, marked above with a dusky line.

SIZE.

Length about three inches and a quarter: tail near one inch.

PLACE.

Inhabits the sandy plain of *Baraba*, towards the *Ob*; and between the *Onon* and *Argun*, and about the lake *Dalai* in the *Chinese* empire. Nothing is known of their manners: the specimens from whom the descriptions were formed, were taken running about the fields.

The last division of mice is of those which lead a subterraneous life, like the Mole, which I take the liberty of naming

* * * Mole-

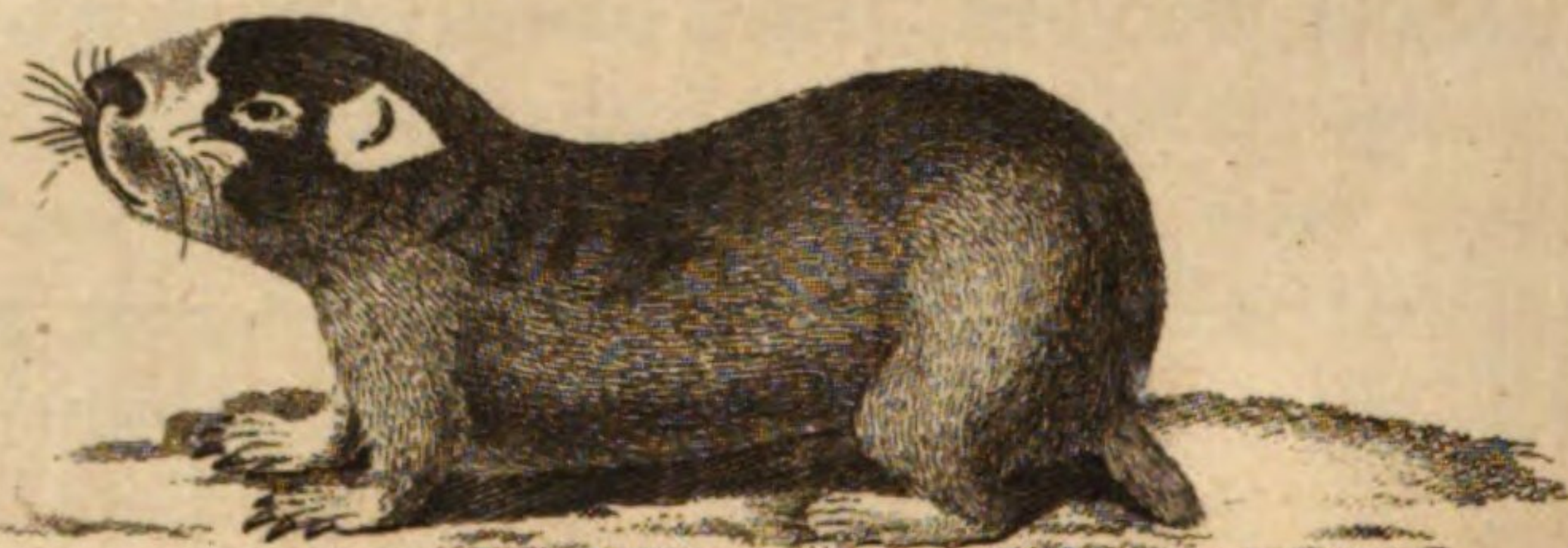


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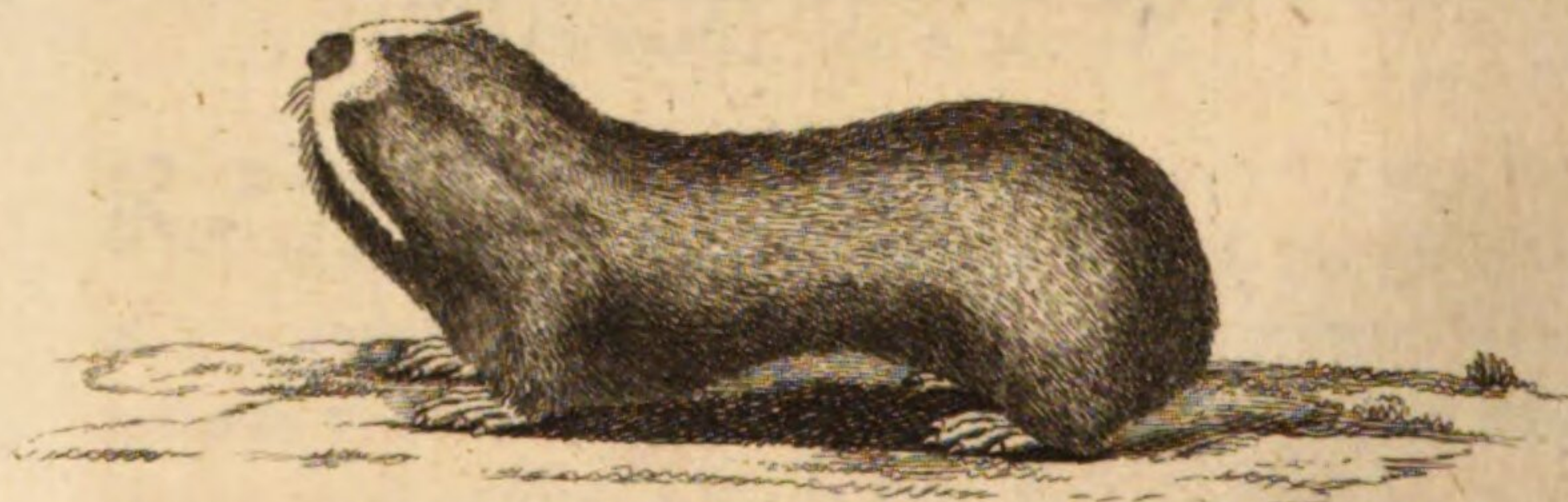
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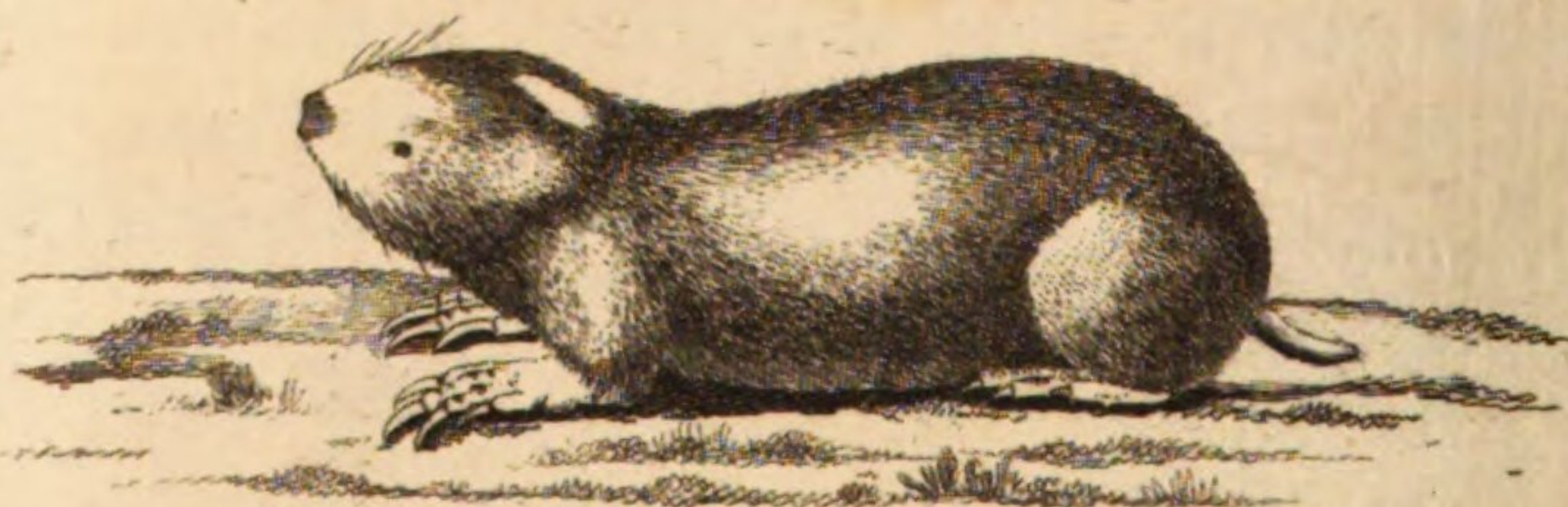
III



I



II



I. Blind Mole Rat. N° 331

II. Daurian M. Rat N° 332. III. Cape M. Rat N° 334

* *
* * * Mole-Rat.

Mus Typhlus. *Pallas Nov. sp. fasc. i.* com. *Petrof. xiv. 411. tab. viii. ix.*
 Lemni. *Rzaczk. Aust. Polon. 325. De* Mus oculis minutissimis, auriculis cau-
Buffon, xv. 142. daque nullis. *Lepechen. ibid. 509. tab.*
 Slepez. *Gmelin Itin. i. 131. tab. xxii.* xv.
 Spalax microphthalmus. *Gueldenst. Nov. Podolian Marmot. Syn. quad. N° 204.*

331. BLIND.

R. with a great head broader than the body: not the least aperture for the eyes; yet beneath the skin are the rudiments of those organs, not bigger than the seed of a poppy: no external ears: the end of the nose covered with a thick skin: nostrils very remote, and placed below: the mouth gaping, and the teeth exposed: upper fore teeth short, lower very long, and none of them hid by the lip; ends quite even: body cylindrical: limbs very short: five toes on each foot, all separated, except by a thin membrane near the base: claws short: hair universally short, thick, and very soft; dusky at the bottom, at the ends of a cinereous grey: the space about the nose, and above the mouth, white.

Length between seven and eight inches: weight of a male above eight ounces.

SIZE.

Inhabits only the southern parts of *Russia*, from *Poland* to the *Volga*, but is not found any where to the east of that river; but is very common from the *Syfran* to the *Sarpa*: is frequent along the *Don*, even to its origin, and about the town of *Ræsk*, excepting the sandy parts, for it delights in moist and turfy soils.

PLACE.

It

It lives in great numbers in the same places with the **EARLESS MARMOTS**.

It forms burrows beneath the turf for a very considerable extent, with several lateral passages made in quest of roots, on which it feeds. At the interval of some yards, there are openings to the surface to discharge the earth, which forms in those places hillocks of two yards in circumference, and of a great height. It works its way with its great teeth, and casts the earth under its belly with the fore feet, and again behind it, with its hind feet: it works with great agility; and on any apprehension of an enemy, it forms instantly a perpendicular burrow. The bite of this animal is very severe. It cannot see its assailant, but lifts up its head in a menacing attitude. When irritated, it snorts, and gnashes its teeth, but emits no cry. It often quits its hole, especially in the morning, and during the amorous season basks with the female in the sun. It does not appear that it lies torpid during winter, nor whether it lays in provision for that season. It is particularly fond of the bulbous *Chærophyllum*.

The *Russians* call it *Slepez*, or the blind: the *Cossacks*, for the same reason, style it *Sfochor Nomon*. In *Ukraine*, the vulgar believe that the touch of a hand, which has suffocated this animal, has the same virtue in curing the king's-evil, as was once believed to be inherent in the abdicated family of *Great Britain*.

Mus Aspalax. *Pallas Nov. sp. fasc. i. 165. tab. x. Itin. iii. 692.*
 Mus Myospalax. *Laxman.*

332. DAURIAN.

R. with a thick flat head: short snout: blunt nose, fit for digging: upper fore teeth naked; lower covered with a moveable lip: no external ears: eyes very small, yet visible, lodged deeply in their sockets, which are so minute as scarcely to admit a grain of millet: body short, and depressed: limbs very strong, especially the fore legs: fore feet large, and adapted for digging; naked, and furnished with five toes, and very long and strong claws, slightly bent, on the three middle: hind feet naked to the heel; on each are five toes with small claws: tail short: hair soft, and loose; color at bottom dusky, outwardly of a dirty cinereous grey: in some is a white line on the hind part of the head.

Differs in size. Those of the *Altaic* chain are near nine inches from nose to tail: those about lake *Baikal* not fix: the tail of the former is near two inches long.

SIZE.

Inhabits, first, the *Altaic* mountains; and again beyond lake *Baikal*, and from thence for some space southward; but none are found to the north. In the former it lives on the bulbs of the *Erythronium*; in the latter on those of the *Lilium Pomponium*.

PLACE.

It burrows like the former, a little below the surface, and spreads over an extent of a hundred fathoms; and the direction it takes is known by the number of hillocks.

Its voice is weak and plaintive. It digs with both nose and fore feet; but less than the preceding with the teeth: by comminuting the earth, and flinging it up in hillocks, it prepares the ground:

ground for the reception of various kinds of rare seeds; which grow usually in greater plenty about such places than any others.

The *Tangusi*, about lake *Baikal*, call this species *Monon Zokor*, or blind; yet it is not quite deprived of sight. The *Russians* style it *Semiunaja Medwedka*, or *Earth Bear*.

333. AFRICAN.

R. with a large head: nose black; end flattened and corrugated: eyes minute, much hid in the fur: no ears: upper teeth one-third of an inch long, fulcated lengthways; lower, one inch and a quarter, exposed to view: legs short: on the fore legs are four toes and a thumb, detached and free: inmost toe the longest, the others gradually shorten: on the thumb is a short claw; the other claws are very long, and slightly bent: the soles are naked, and distinguished by two great tubercles: hind feet very long, large, and naked, which the animal rests on even to the heel: they have five toes with short claws.

Tail compressed, and covered above and below with short hairs: on the sides beset with very long bristles disposed horizontally.

Color a cinereous brown, palest on the lower parts.

SIZE.

Length to the tail thirteen inches: tail two.

PLACE.

Inhabits the sandy country near the *Cape of Good Hope*, where it is called *Sand Moll*. It burrows, and flings up hillocks, like the former; and renders the ground so hollow, as to be very inconvenient to travellers; for it breaks every six or seven minutes under the horses feet, and lets them in up to the shoulders. This animal feeds on the roots of *Ixiæ Gladioli*, *Antholyzæ*, and *Irides*;

grows to the size of a rabbit, and is by some esteemed a good dish*. This, from its superior size, I suppose to be the *Sand Moll* of Mr. *Masson*.

Mus Capensis. Pallas Nov. sp. fasc. i.

tab. xlv.

172. *tab. vii.*

La Taupe du Cap. Journal hist. p.

Long-toothed Marmot. *Brown's Zool.*

& fig. 64.

334. CAPE.

R. with a blunt nose: minute round nostrils: eyes small, but larger than those of the preceding: no ears: upper fore teeth contiguous, truncated; lower, an inch long, not contiguous, bend upwards, excavated on the upper surface: end of the nose naked and black, the rest white: chin, and lower sides of the cheeks, of the same color: space round the ears and eyes white: on the hind part of the head is a white spot; rest of the head, cheeks, back, and sides, of a rusty brown, and cinereous: belly cinereous: five slender toes on each foot, furnished with small claws: tail very short, beset with bristles.

Length, from nose to tail, about seven inches.

Size:

Is very common about the *Cape*, and very destructive to gardens; flings up hillocks, and eats roots of various kinds.

* *Masson's trav. Ph. Trans. lxi. 304. De la Caille, 299.*

335. TALPINE. *Mus Talpinus.* *Pallas Nov. sp. fasc. i. 176. tab. xi. B. Nov. com. Petrop. xiv. 568. tab. xxi. fig. 3.*

R. with a large short head : thick snout : nose truncated : upper teeth extending out of the mouth, long and flat : lower longer, rounded at the ends : eyes small, hid in the fur : no ears : the aperture bounded behind by a small rim : body short : fore feet strong : on those, and on the hind feet, five toes furnished with small claws : tail very short, scarcely appearing beyond the fur : color of the head, nose, back, and sides, dusky : cheeks greyish : chin white : belly and limbs whitish.

SIZE.

Length near four inches.

PLACE.

Inhabits all the open grounds and commons of the temperate parts of *Russia* and western *Siberia*, but scarcely any beyond the *Irtish*, and none as far as the *Oby*.

MANNERS.

Loves a black turfy soil, and is frequent in meadows near villages : seldom in sandy or mudded tracts : always abound where there is plenty of *Phlomis tuberosa*, and *Lathyrus esculentus*. Its place is known by the little hillocks it flings up along the course of its burrow, which is of great extent ; for this reason the *Russians* call it *Semleroika*, or *Earth-digger*. In these burrows it lurks all the day, but in evening and morning renews its labors ; nor does it quit its hole unless to fling out the earth, or in the season of love to seek a mate, or to change the place of its habitation. It does not bear the full light of day ; therefore its few excursions are usually in the evenings.

It does not grow torpid in winter ; but makes its nest beneath some shrub or hay-rick. They make their nest deep in the ground,

ground, and keep themselves warm by lining it with soft grafs: and often make a lodge, which they fill with tuberous roots. During the cold season their fur grows univerfally thicker and longer.

It is very eafily taken: but foon grows fick in confinement, unlefs a quantity of earth is put into the place. They emit a puling note, but that rarely: they often gnafh, and, as it were, whet their teeth againft each other.

They are in heat the end of *March*, or beginning of *April*; at that time the females have a ftrong mufky fmell. They bring three or four at a time.

They fometimes vary in color, and are found quite black.

XXXIV.
S H R E W.

Two cutting teeth in each jaw, pointing forward.

Long slender nose : small ears.

Five toes on each foot.

336. MUSKY.

Mus aquaticus. *Clusii exot.* 373. *Worm.* Dæfman, *Faun. succ.* No. 28. *De Buf-*
Mus. 334. *fon*, x. 1.Muscovy or Musk rat. *Raii syn. quad.* Castor cauda verticaliter plana, digitis
217. *Nov. Com. Petrop.* iv. 383. omnibus membranis inter se con-Castor moschatus. C. cauda longa com- nexis. *Briffon quad.* 92.
presso-lanceolata pedibus palmatis. Long-nosed Beaver. *Syn. quad.* [N° 192.
Lin. syst. 79.

S. with a long slender nose, like that of a shrew-mouse : no external ears : very small eyes : tail compressed sideways : color of the head and back dusky ; the belly whitish ash-color : length, from nose to tail, seven inches ; tail eight.

Inhabits the river *Volga* and lakes adjacent, from *Novogrod* to *Saratof* ; never found in *Russia*, and its existence in *Lapland* doubted *. It never wanders far from the sides of the rivers or lakes : is very slow in its pace : makes holes in the cliffs, with the entrance far beneath the lowest fall of the water ; works upwards, but never to the surface, only high enough to lie beyond the highest flow of the river : feeds on fish : is devoured by the Pikes and *Siluri*, and gives those fish so strong a flavor of musk, as to render them not eatable : has the same scent as the former, especially about the tail : out of which is expressed a sort of musk, very much resembling the genuine kind †. The skins are put

* Dr. Pallas, MSS.

† Schöber in *Müller's Sammlung Russ.* vii. 41. 42.

into chests among cloaths, to drive away moths *, and to preserve the wearers from pestilence and fevers.

At *Orenburg*, the skins and tails sell for fifteen or twenty *copecs* per hundred. They are so common near *Nizney Novogorod*, that the peasants bring five hundred apiece to market, where they are sold for one ruble per hundred. The *German* name for these animals is *Biesem-ratze*; the *Russian*, *Wychozhol*.

Mus Pilorides? *Pallas Nov. sp. fasc. i. 91.*

Mus albus Ceylonicus? *Briffon, 122. LEV. Mus.*

337. PERFUMING.

S. with a long slender nose: upper jaw extending far beyond the lower: upper fore teeth short: lower long, slender, incurvated: whiskers long and white: eyes small: ears transparent, broad, and round: hair short and close, on head and body, of a fine pale cærulean: the belly lighter: feet white.

Length from nose to tail near eight inches; tail three and a half.

Inhabits *Java*, and others of the *East Indian* islands; eats rice; has so strong a scent of musk as to perfume every thing it runs over. I have it from the most undoubted authority, that it will render the wine in a well-corked bottle not drinkable, by merely passing over it. Cats will not touch them.

• *Ritchkoff Orenb. Topogr. i. 286.*

Tucan.

338. MEXICAN.

Tucan. *Fernandez Nov. Hisp.* 7.Le Tucan. *De Buffon*, xv. 159.

S. with a sharp nose : small round ears : without sight : two long fore teeth above and below : thick, fat, and fleshy body : short legs, so that the belly almost touches the ground : long crooked claws : tawny hair : short tail : length, from nose to tail, nine inches.

Inhabits *Mexico* : burrows, and makes such a number of cavities, that travellers can scarcely tread with safety : if it gets out of its hole, does not know how to return, but begins to dig another : grows very fat, and is eatable : feeds on roots, kidney-beans, and other seeds. *M. de Buffon* thinks it a Mole ; but by the ears, it should be classed here.

339. BRASILIAN.

Mus araneus figura muris. *Marcgrave*
Brasil, 229.La musaraigne de Brasil. *De Buffon*,
xv. 160.

S. with a sharp nose and teeth : pendulous scrotum : of a dusky color, marked along the back with three broad black strokes : length, from nose to tail, five inches ; tail two.

Inhabits *Brasil* : does not fear the cat : neither does that animal hunt after it.

S. murinus.

S. murinus. S. cauda mediocri, corpore fusco, pedibus caudaque cinereis.
Lin. syst. 74.

340. MURINE.

S with a long nose, hollowed beneath : very long hairs about the nostrils : ears rounded, and rather naked : of an ash-color : body of the size of a common mouse : tail a little shorter than the body, and not so hairy.

Inhabits *Java*.

Μυγαλη. Ælian hist. An. lib. vi. c. 22.

Μυογαλη. Dioscorid. lib. ii. c. 42.

Mus araneus. Agricola An. Subter. 485.

Gesner quad. 747.

Mus araneus, mus cæcus. Gesner econ. 116.

Mus araneus, Shrew, Shrew-mouse, or hardy Shrew. Raii syn. quad. 233.

Mus araneus rostro productiore Spitz-

maus. Klein quad. 57. Kramer Austr. 317.

Sorex araneus. S. cauda mediocri, corpore subtus albido. Lin. syst. 74.

Nabbus. Faun. suec. No. 24.

Mus araneus supra ex fusco rufus infra albicans. Brisson quad. 126.

La Musaraigne. De Buffon, viii. 57. tab. x.

Shrew-mouse. Br. Zool. i. 112.

341. FORTID.

S with short rounded ears : eyes small, and almost hid in the fur : nose long and slender, upper part the longest : head and upper part of the body of a brownish red : belly of a dirty white : length, from nose to tail, two inches and a half ; tail one and a half.

Inhabits *Europe, Sibiria*, and even the *Arctic* flats, and *Kamt-schatka* ; it is also found about the *Caspian* sea : lives in old walls, heaps of stones, or holes in the earth : is frequently near hayricks, dunghills and necessary-houses : lives on corn, insects, and any filth : is often observed rooting in ordure, like a hog : from

its food, or the places it frequents, has a disagreeable smell : cats will kill, but not eat it : brings four or five young at a time. The antients believed it was injurious to cattle, an error now detected. There seems to be an annual mortality of these animals in *August*, numbers being then found dead in the paths.

342. WATER.

Mus araneus dorso nigro, ventreque

64. tab. xi.

albo. Merret Pinax, 167.

Water Shrew-mouse. Br. Zool. illustr.

Sorex fodiens. Pallas *.

tab. cii. LEV. Mus.

La Musaraigne d'Eau. De Buffon, viii.

S with a long slender nose : very minute ears ; and within each a tuft of white hairs : very small eyes, hid in the fur : color of the head and upper part of the body black : throat, breast, and belly, of a light ash-color : the feet white : beneath the tail a triangular dusky spot : much larger than the last : length, from nose to tail, three inches three quarters ; tail two inches.

Inhabits *Europe* and *Siberia*, as far at least as the river *Jenesei* ; long since known in *England*, but lost till *May* 1768, when it was discovered in the fens near *Revesby Abby*, *Lincolnshire* : burrows in the banks near the water ; and is said to swim under water † : is called by the Fen-men the *Blind Mouse* : chirrups like a grasshopper, and its note often mistaken for one.

* Doctor *Pallas* favored me with several prints of this animal in 1765, but never published them : he discovered it near *Berlin* : it is called there *Gräber*, or The Digger.

† *L. Baldner*, iii. 137.

Sorex

Sorex minutus. *S. rostro longissimo.* *Lin. syst. 73.*

343. MINUTE.

S. with a head near as big as the body : very slender nose : broad short naked ears : whiskers reaching to the eyes : eyes small, and capable of being drawn in : hair very fine and shining ; grey above, white beneath : no tail.

Inhabits *Siberia*, about the *Oby* and near the *Kama* : lives in a nest made of *lichens*, in some moist place beneath the roots of trees : lives on seeds : digs : runs swiftly : has the voice of a bat.

S. with a very long slender nose : in shape and color like the **FOETID**, but paler : the tail very slender near the roots, then suddenly grows remarkably thick and round ; and again grows gradually less to the end.

344. PYGMY.

LINNÆUS imagines that the last is the least of quadrupeds. Doctor PALLAS, who communicated this species, think this has a better clame to that title, as its weight is only equal to, or very little above half a drachm.

Is very common between, and about the rivers *Jenesei* and *Oby*.

S. of a dusky cinereous color : belly white : cutting teeth white : tail slender and hairy.

345. WHITE-TOOTHED.

346. SQUARE-
TAILED.

S. of a dusky cinereous color: belly paler: cutting teeth brownish: tail inclines to a squared form.

This species has no bad smell.

347. CARINATED.

S. of a dusky cinereous whitish on the belly, with brownish fore teeth: a white spot beyond each eye: tail slender and taper, carinated or ridged below.

348. UNICOLOR.

S. of an uniform dusky cinereous color: base of the tail narrow, or compressed.

PLACE.

The above four species inhabit the neighborhood of *Strasbourg*, and were discovered by Professor *Herman*.

Long nose : upper jaw much longer than the lower.

No ears.

Fore feet very broad, with scarcely any apparent legs before :
hind feet small.

XXXV.

M O L E.

Talpa. *Agricola An. Subter.* 490. *Ges-*
ner quad. 931. *Klein quad.* 60.

Talpa, the Mole, Mold-warp, or Want.
Raii syn. quad. 236.

Kret. *Rzacinski Polon.* 236.

Scheer, Scheer-maus, Maul-wurf.
Kramer Austr. 314.

Talpa Europæus. T. caudata, pedibus

pentadactylis. *Lin. syst.* 73.

Mullvad, Surk. *Faun. suec.* No. 23.
Br. Zool. i. 108.

Talpa caudata, nigricans pedibus an-
ticis et posticis pentadactylis. *B rissou*
quad. 203.

La Taupe. *De Buffon*, viii. 81. *tab.*
xii. *LEV. Mus.*

349. EUROPEAN.

M. with very minute eyes, hid in the fur : long snout : six
cutting teeth in the upper, eight in the lower jaw, and
two canine in each : no external ears, only an orifice : fore part
of the body thick and muscular ; hind part taper : fore feet placed
obliquely, broad, and like hands : five toes, each terminated by
strong claws : hind feet very small, with five toes to each : tail
short : skin very tough, so as scarcely to be cut through : hair
short, close set, softer than the finest velvet : usually black, some-
times spotted * with white ; sometimes quite white : length five
inches three quarters ; tail one.

Inhabits *Europe*, and the temperate or southern parts of *Russia*
and *Siberia*, as far as the River *Lena*. The *Siberian* is much larger
than the *European* Mole.

PLACE.

* Spotted Mole, *Edw.* 268.

MANNERS.

It lives under ground : burrows with vast rapidity with its fore feet ; flings the earth back with its hind feet : has the sense of smelling exquisite, which directs it to its food—worms, insects, and roots : does vast damage in gardens, by flinging up the soil and loosening the roots of plants : is most active before rain, and in winter before a thaw, worms being then in motion : breeds in the spring : brings four or five young at a time : makes its nest of moss, a little beneath the surface of the ground, under the greatest hillock : raises no hillocks in dry weather, being then obliged to penetrate deep after its prey : makes a great scream when taken. *Palma christi* and white *bellebore*, made into a paste, and laid in their holes, destroys them. None in *Ireland*.

β. YELLOW M. in form resembling the *European*, but larger, being six inches two-tenths long ; the tail one inch : hair soft, silky, and glossy, of a yellowish brown color at the ends ; dark grey at the roots : brightest about the head ; darkest about the rump : belly of a deep cinereous brown : feet and tail white.

Inhabits *N. America*. Described from a skin in which the jaws were taken out.

Talpa Sibiricus verficolor, *Aspalax* dictus. *Seb. Mus.* i. 51. tab. xxxii. fig. 4, 5. *Klein quad.* 60.

Talpa Asiatica. *T. ecaudata*, palmis tridactylis. *Lin. syst.* 73.

Talpa ecaudata, ex viridi aurea, pedi-

bus anticis tridactylis, posticis tetradactylis. *Briffon quad.* 206.

La Taupe dorée. *De Buffon*, xv. 145.

Variable Mole. *Brown's Zool.* 118. tab. 44.

350. SIBIRIAN.

M. with the nose short and blunt: space between the tip, and corner of the mouth covered with pale brown hair: from the corner of the mouth, a broad whitish bar points upwards along the sides of the head: color of the hair on the upper part of the body varied with glossy green and copper-color: below is of a cinereous brown: in the upper jaw are two sharp cutting teeth; in the lower the same, with a sharp canine tooth contiguous to them on each side.

TEETH.

On the fore feet three toes with vast claws; that on the outmost toe exceedingly large: on the hind feet five small toes and weak claws: no tail: rump round.

Length four inches.

SIZE.

Inhabits the *Cape of Good Hope*, not *Siberia*, as *Seba* supposes: Whether this is the *Bles Moll* of the *Dutch*, which lives in the harder grounds about the *Cape* *, I cannot determine.

PLACE.

* *Maffon's Trav. Ph. Transf.* lxvi. 305.

351. RADIATED.

Sorex cristatus, *S. naribus carunculatis*, *cauda brevior*. *Lin. syst.* 73.
LEV. MUS.

M. with small but broad fore legs; five long white claws on each: nose long; the edges beset with radiated tendrils: hair on the body dusky, very short, fine, and compact; on the nose longer: the hind legs scaly: five toes on each foot: length, from nose to tail, three inches three quarters: tail slender, round, and taper, one inch three-tenths long.

PLACE.

Inhabits *N. America*. Forms subterraneous passages, in different directions, in uncultivated fields; raises walks about two inches high and a palm broad: the holes often give way and let in the walkers. Feeds on roots: has great strength in its legs.

352. LONG-TAIL-ED.

M. with a radiated nose: the fore feet pretty broad, hind feet very scaly, with a few short hairs on them: the claws on the fore feet like those of the common Mole; on the hind very long and slender: hair on the nose and body soft, long, and of a rusty brown color: tail covered with short hair; the length two inches; that of nose and body four inches six-tenths.

PLACE.

Inhabits *N. America*. *LEV. MUS.*

353. BROWN.

Sorex aquaticus, *S. plantis palmatis*, *palmis caudaque brevior* *albis*.
Lin. syst. 74. *LEV. MUS.*

M. with a slender nose: upper jaw much longer than the lower; two cutting teeth in the upper, four in the lower, the two middle of which are very small: no canine teeth: fore feet

feet very broad : nails long : hind feet small ; five claws on each : hair very soft and glossy, brown at the ends, deep grey at the bottom : tail and feet white : length, from nose to tail, five inches and a half : tail very slender, not an inch long.

Inhabits *N. America* : called there the Brown Mole : sent from *New York* by Mr. *A. Blackburne*, with β . Yellow Mole, and No. 351 and 352. The black and shining purple *Virginian* Mole, described by *Seba* * as the same with the common kind, was not among those that gentleman favored us with. *Linnaeus* places this, and our radiated Mole, in his class of SOREX, or SHREW, on account of the difference of the teeth ; but as these animals possess the stronger characters of the MOLE, such as form of nose and body, shape of feet, and even the manners, we think them better adapted to this genus than to the preceding.

PLACE.

Talpa rubra Americana. Seb. Mus. i. 51. tab. xxxii. fig. 2.

354. RED..

M. of a cinereous red color : three toes on the fore feet, four on the hind : form of the body and tail like the *European* kind.

According to *Seba*, it inhabits *America* ; but he does not inform us whether it is *North* or *South*.

* I. 51. tab. xxxii. fig. 4.

Five

XXXVI.
HEDGE-HOG.

Five toes on each foot.

Body covered with strong short spines.

355. COMMON.

Erinaceus. *Agricola An. Subter.* 481.Echinus terrestris. *Gesner quad.* 368.

Echinus sc. Erinaceus terrestris. Urchin,

or Hedge-hog. *Raii syn. quad.* 231.Jez. *Rzaczinski Polon.* 233.Acanthion vulgaris nostras. *Klein quad.*

66.

Igel. *Kramer Austr.* 314.

Erinaceus Europeus. E. auriculis rotun-

datis naribus cristatis. *Lin. syst.* 75.Igelkott. *Faun. suec.* N° 22. *Br. Zool.* i.

106.

Erinaceus auriculis erectis. *Briffon**quad.* 128. *Seb. Mus.* i. 78. *tab.* xlix.L'Herisson. *De Buffon*, viii. 28. *tab.* vi.Hærbe, vel Ganfud. *Forskal*, iii. *LEV.**Mus.*

H. with a long nose: nostrils bordered on each side with a loose flap: ears rounded, short, broad, and naked: eyes small: legs short, naked, and dusky: inner toe the shortest: claws weak: upper part of the face, the sides, and rump, covered with strong coarse hair of a yellowish and cinereous color; the back, with strong sharp spines of a whitish color, with a bar of black through their middle: tail an inch long: length, from nose to tail, ten inches.

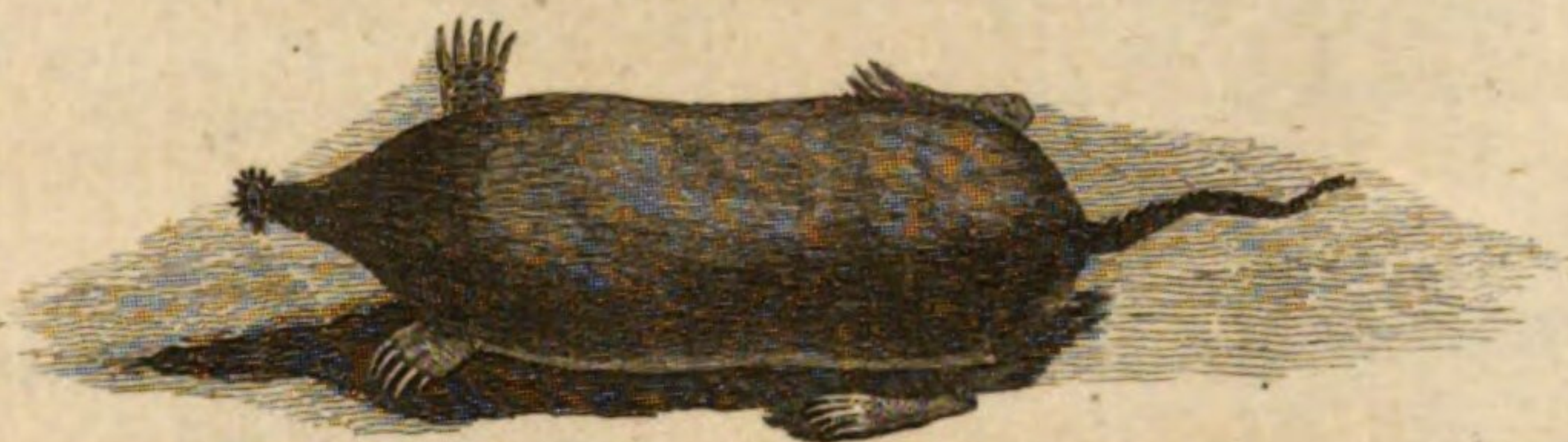
PLACE.

Inhabits *Europe* and *Madagascar**; is common in many parts of *Russia*, but scarcely or ever found in *Siberia*: is in motion during night; keeps retired in the day: feeds on roots, fruits, worms, and insects: erroneously charged with sucking cows and hurting their udders: resides in small thickets, in hedges, and at the bottom of ditches covered with bushes; lies well wrapped up in

* *Flacourt voy. Madagascar*, 152, where they are called *Sora*.

moss

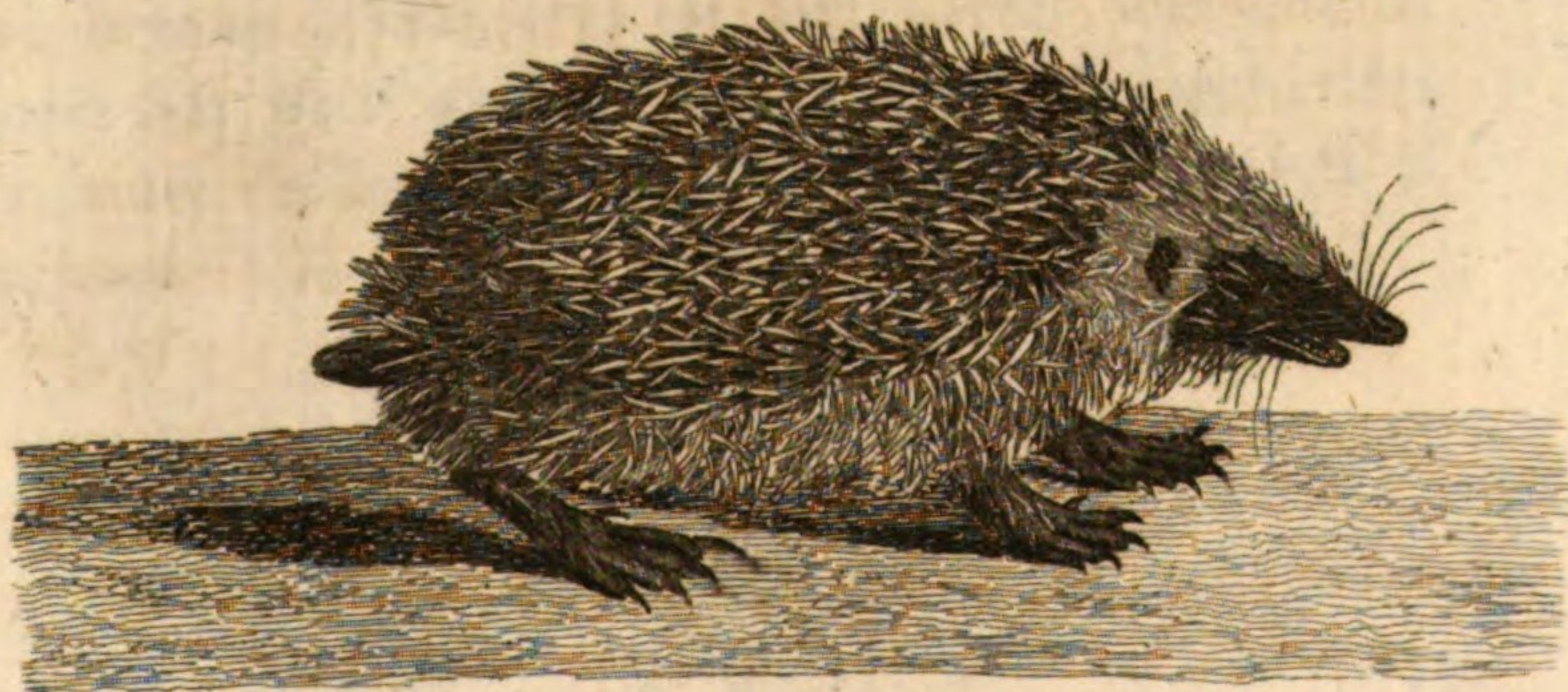
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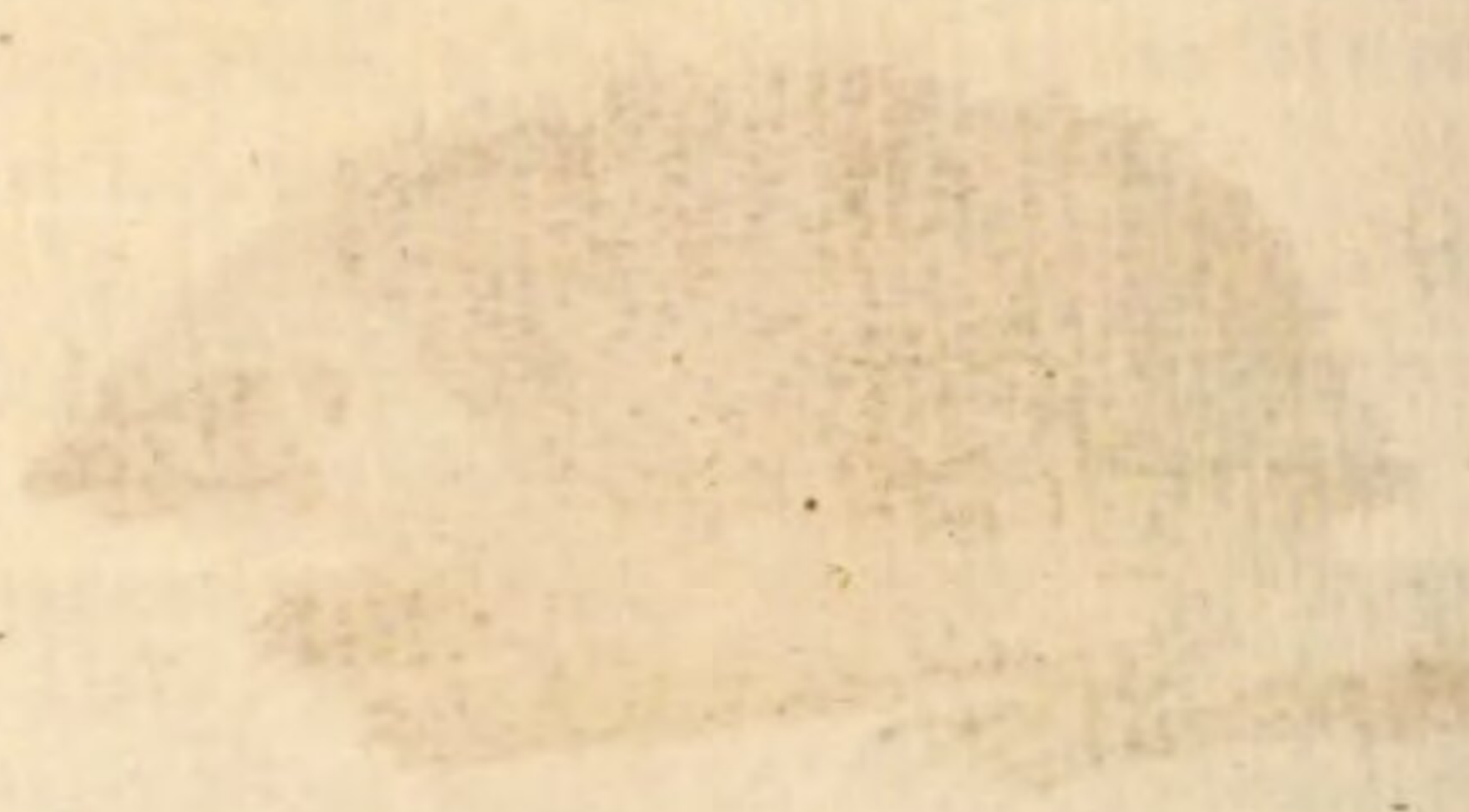
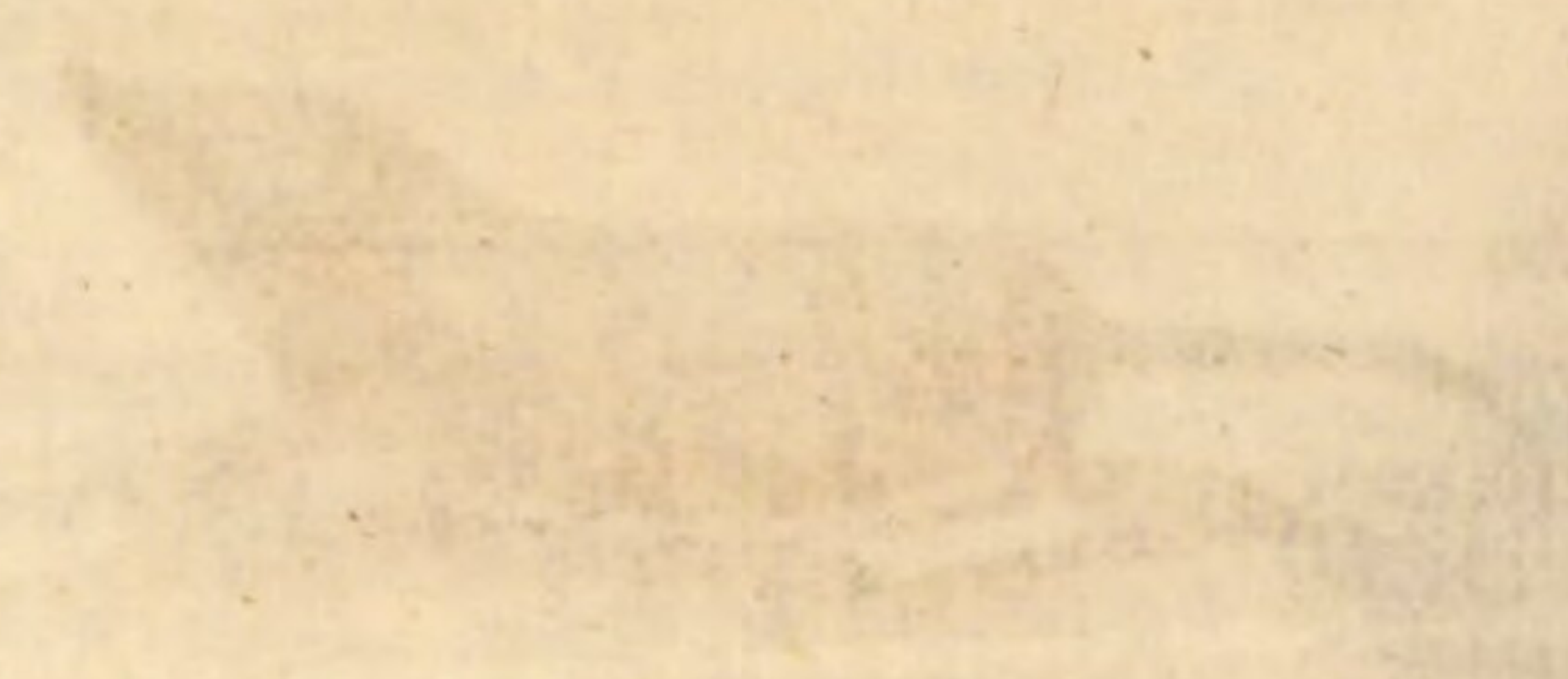
III



I RADIATED MOLE N° 351. II LONG-TAILED M. N° 352.
III HEDGE HOG N° 355.

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XIX



REPORTED FROM THE FIELD BY THE
IN THE MONTH OF 1881

moos, grafs, or leaves, and during winter rolls itself up and sleeps out that dreary season : a mild and helpless animal ; on approach of an enemy, rolls itself into the form of a ball, and is then invulnerable.

Erinaceus Auritus. *Pallas & Gmelin, in Nov. com. Petrop. xiv. 519. 573. tab. xvi. and xxi. fig. 4.* 356. SIBIRIAN.

H. with the upper jaw long and slender : with very large open oval ears, naked, brown round the edges, with soft whitish hairs within : tail shorter than that of the common hedge-hog : upper part of the body covered with slender brown spines, encompassed at the base, and near the ends, with a ring of white : the limbs and belly cloathed with a most elegant soft white fur.

Generally much inferior in size to the common kind ; but beyond *Baikal* is found much larger than that species.

Is very common in all the southern deserts, from the *Don* to the *Oby*.

PLACE.

Grows very fat : sleeps all the winter, lodged in a hole a few inches deep : lives on insects, even the most caustic, and will eat (as experiment has been made) above a hundred *Cantharides* without any injury : rolls itself up, and has all the manners of the common kind.

357. ASIATIC.

Le Tendrac, et Le Tanrec. *De Buffon*, xii. 438.

H. with a long slender nose: short rounded ears: short legs: the upper part of the body covered with short spines, white, marked cross the middle with rust-color: the face, throat, belly, buttocks, and legs, thinly covered with whitish fine but hard hair: tail very short, covered with spines: about the nose some hairs above two inches long: size of a mole. This is the species *M. de Buffon* calls *Le Tendrac*.

The other, or the *Tanrec*, is rather larger: covered with spines only on the top and hind part of the head, the top and sides of the neck, and the shoulders; the longest were on the upper part of the neck, and stood erect: the rest of the body was covered with yellowish bristles, among which were intermixed some that were black, and much longer than the others. Each of these animals, which are varieties of the same species, had five toes on each foot.

PLACE.

Inhabit the isles of *India*, and that of *Madagascar*: are, when of their full growth, of the size of * rabbits: grunt like hogs: grow very fat: multiply greatly: frequent † shallow pieces of fresh or salt water: they burrow on land: lie torpid during six months, during which time their old hair falls off. Their flesh is eaten by the *Indians*, but is very flabby and insipid.

* *Dutch voy. East Indies*, 203. Those in the cabinet of the *French King* were much smaller; probably young.

† *Cauche voy. Madagascar*, 53. *Flacourt hist. Madagascar*, 152.

American Hedge-hog. *Bancroft Guiana*,
144.
Erinaceus inauris. *E. auriculis nullis*.

Lin. syst. 75. *Briffon. quad.* 131.
Erinaceus Americanus albus. Seb. Mus.
i. 78. tab. xlix. fig. 3.

358. GUIANA.

H. without external ears, having only two orifices for hearing:
has a short thick head: back and sides covered with short
spines of an ash-color, tinged with yellow: face, belly, legs, and
tail, covered with soft whitish hair: above the eyes, of a chef-
nut color; the hind part and sides of the head of a deeper color:
length, from nose to tail, eight inches: tail short: claws long
and crooked.

Inhabits *Guiana*.

PLACE.

“AMMID .875”

DIV. II. SECT. IV.

DIGITATED QUADRUPEDS:

Without Cutting Teeth.

2. *Sciurus*. This genus is distinguished by its small size, its tail being nearly equal to its body, and its feet being very short. The color of the body is brown, and the tail is black. The young of this genus are born with a white spot on the back, which is gradually washed off as they grow. The male has a small patch of white on the throat, and the female has a small patch of white on the breast. The young of this genus are born with a white spot on the back, which is gradually washed off as they grow. The male has a small patch of white on the throat, and the female has a small patch of white on the breast.

DIV. II. SECT. IV. Digitated Quadrupeds.

XXXVII.
S L O T H.

Without cutting teeth in either jaw.
With canine teeth and grinders.
Fore legs much longer than the hind.
Long claws.

359. THREE-
TOED.

Arctopithecus. *Gesner quad.* 869. *Icon quad.* 96.

Ignavus five per *αλιφρασι*, Agilis. *Clus. exot.* 110. 372.

Ai, five Ignavus. *Marcgrave Brasil*, 221.

Sloth. *Raii syn. quad.* 245. *Edw.* 310.

Ignavus Americanus, risum fletu miscens. *Klein quad.* 43.

Tardigradus pedibus anticis & posticis tridactylis. *Briffon quad.* 21.

Ai, five Tardigradus gracilis Americanus. *Seb. Mus.* xxxiii. *fig.* 2. *Schreber*, ii. 7. *tab.* lxiv.

Ouaikarè, Pareffeux. *Barrere France Equin.* 154.

Bradypus tridactylus. B. pedibus tridactylis cauda brevi. *Lin. syst.* 50.

L'Ai. *De Buffon*, xiii. 34. *tab.* v. vi. *Br. Mus.* *LEV. Mus.*

S. with a blunt black nose, a little lengthened: very small external ears: eyes small, black, and heavy; from the corner of each a dusky line: color of the face and throat a dirty white: hair on the limbs and body long and very uneven, of a cinereous brown color, with a black line along the middle of the back: each side, about the shoulders, is dashed with rust-color; the rest of the back and limbs spotted irregularly with black. The young, such as I suspect to be that in the *British Museum*, have few or no spots. Tail short, a meer stump: legs thick, long, and awkwardly



SLOTH N°359

awkwardly placed: face naked: three toes, and three very long claws on each foot.

It grows, as *Nieuboff* remarks, to the bulk of a middle-sized fox*.

SIZE.

Inhabits most parts of the eastern side of *South America*: the most sluggish and most slow of all animals; seems to move with the utmost pain; makes a great progress if it can go a quarter of a league in a day†: ascends trees, in which it generally lives, with much difficulty: its food is fruit, or the leaves of trees; if it cannot find fruit on the ground, looks out for a tree well loaded, and with great pains climbs up: to save the trouble of descending, flings off the fruit, and forming itself into a ball, drops from the branches; continues at the foot till it has devoured all; nor ever stirs, till compelled by hunger‡: its motion is attended with a most moving and plaintive cry, which at once produces pity and disgust, and is its only defence; for every beast of prey is so affected by the noise, as to quit it with horror||: its mouth is never without foam: its note, according to *Kircher*, is an ascending and descending *hexachord*§, which it utters only by night: its look is so piteous as to move compassion; it is also accompanied with tears, which dissuade every body from injuring so wretched a being: its abstinence from food is remarkably powerful; one that had fastened itself by its feet to a pole, and was so suspended cross two beams, remained forty days without meat,

PLACE.

MANNERS.

* *Nieuboff's trav. Churchill's collect.* ii. 18.

† *Gumilla Orenoque*, ii. 13.

‡ *Ulloa's voy.* i. 103.

|| *Ibid.*

§ *Kircher's Musurgia*, as quoted by Mr. STILLINGFLEET, in his miscellaneous tracts, p. 100.

drink,

drink, or sleep*: the strength in its feet is so great, that there is no possibility of freeing any thing from its claws, which it happens to seize on. A dog was let loose at the above-mentioned animal, when it was taken from the pole; after some time the *Sloth* layed hold of the dog with its feet, and held him four days, till he perished with hunger †.

360. Two-toed. *Tardigradus Ceilonicus* fœmina. *Seb. Mus. i. tab. xxxiv.* *Tardigradus* pedibus anticis didactylis, posticis tridactylis. *Briffon quad. 22.*
Bradypus didactylus. Br. manibus didactylis cauda nulla. *Lin. syst. 51.* L'Unau. *De Buffon*, xiii. 34. tab. i. Br. *Mus.*
Schreber, ii. 10. tab. lxxv.

S. with a round head: short projecting nose: ears like the human, lying flat to the head: two long strong claws on the fore feet, three on the hind: hair on the body long and rough; on some parts curled and woolly: in some, of a pale red above, cinereous below; in others, of a yellowish white below, cinereous brown above. No tail. Length of that in the *British Museum* eleven inches: I believe a young one.

PLACE.

Inhabits *South America* and the isle of *Ceylon*. The last is strenuously denied by *M. de Buffon*, who has fixed the residence of this genus to *America* only: but, besides the authority of *Seba*, who expressly says his specimen was brought from *Ceylon*, a gentleman, long resident in *India*, and much distinguished in the literary world, has informed me he has seen this animal brought from the *Paliacat* mountains that lie in sight of *Madras*; which satisfies me that it is common to both continents.

* *Kircher.*

† *Ibid.*

There

There is reason to think that it is met with also in *Guinea*, or at least some species of this genus; for *Barbot* and *Bosman* describe an animal by the name of *Potto*, to which they give the attributes of the former, and describe as being grey when young, red, and covered with a sort of hair as thick set as flocks of wool. Both these writers were sensible men, and, though not naturalists, were too observant of the animals of *Guinea* to mistake one whose characters are so strongly marked as those of the *Sloth* *.

* *Bosman*, 237. *Barbot*, 212.

XXXVIII.
ARMADILLO.

Without either cutting teeth or canine teeth.

Head, and upper part of the body, guarded by a crustaceous covering; the middle with pliant bands, formed of various segments, reaching from the back to the edges of the belly.

361. THREE-
BANDED.

Tatu apara. *Marcgrave Brasil*, 232.

Raii syn. quad. 234.

Armadillo seu Tatu genus alterum.

Clus. Exot. 109. *Klein. quad.* 48.

Tatu seu Armadillo orientalis. *Seb. Mus.*

i. tab. xxxviii. *fig.* 2, 3.

Dasyus tricinctus. *D. cingulis tribus,*

pedibus pentadactylis. Lin. syst. 53.

Cataphractus scutis duobus cingulis tribus. Brisson quad. 24.

L'Apar, ou le Tatou a trois bandes. *De Buffon*, x. 206. *Schreber*, ii. 28. *tab.* lxxii. *A. lxxvi. fig.* 1. 2.

A with short but broad rounded ears: the crust on the head, back, and rump, divided into elegant pentangular tuberculated segments: three bands in the middle: five toes on each foot: short tail.

PLACE AND
MANNERS.

The whole genus inhabits *South America*: the manners of all much the same: burrows under ground; the smaller species in moist places, the larger in dry, and at a distance from the sea: keeps in its hole in the day, rambles out at night: when overtaken, rolls itself into the form of a ball, which it does by means of the pliant bands on its middle, and thus becomes invulnerable: when surprized, runs to its hole, and thinks itself secure if it can hide its head and some part of its body. The *Indians* take it by the tail, when the animal fixes its claws in the earth so strongly that there is no moving it till the *Indian* tickles

it with a stick: is hunted with little dogs, who give notice to their master of its haunts by barking, who digs it out; to take it out incautiously is very dangerous, on account of the snakes that commonly lurk in the burrows. Feeds on potatoes, melons, and roots, and does great damage to plantations: drinks much: grows very fat, and is reckoned very delicious eating when young; but when old, has a musky disagreeable taste: is very numerous; breeds every month, and brings four at a time: is very inoffensive*.

Tatou. *Belon obs.* 211. *Portraits*, 106.
Tatu & Tatu paba *Brasil*: Armadillo
Hispanis, Lusitanis Encuberto. *Marc-*
grave Brasil, 131.
Cataphractus scutis duobus, cingulis
sex. *Briffon quad.* 25.

Dasyus sex cinctus. D. cingulis senis, 362. SIX-BANDED.
pedibus pentadactylis. Lin. syst. 54.
L'Encourbert, ou Le Tatou a six
bandes. *De Buffon*, x. 209. *tab.* xlii.
Supplem. iii. 285. *tab.* lvii. *Schreber,*
ii. 31. *tab.* lxxi. B. LEV. MUS.

A. with the crust of the head, shoulders, and rump, formed of angular pieces: the bands on the back six; between which, also on the neck and belly, are a few scattered hairs: tail not the length of the body, very thick at the base, tapering to a point: five toes on each foot.

Inhabits *Brasil* and *Guiana*.

PLACE.

* The authorities for the natural history: *Marcgrave*, 231. *Dampier*, ii. 61. *Gumilla Orenoque*, iii. 223 to 226. *Nieuhoff*, 19. *Bancroft's Guiana*, 145. *Roche-*
fort Antilles, i. 286.

363. EIGHT-
BANDED.Ayotochtli? *Hernandez Mex.* 314.Tatuete *Brasilienfibus*, Verdadeiro *Lufitanis*. *Marcgrave Brasil*, 231. *Clus. exot.* 330.Cataphraetus scutis duobus cingulis octo. *Briffon quad.* 26.

Erinaceus loricatus cingulis septenis

palmis tetradactylis, plantis pentadactylis. *Amæn. Acad.* i. 560.Dasypus septem cinctus. *Lin. syst.* 54.

Le Tatuete, ou Tatou a huit bandes.

De Buffon, x. 212. *Schreber*, ii. 34. 36. *tab.* lxxii. lxxvi. *fig.* 3, 4.

A. with upright ears, two inches long: small black eyes: eight bands on the sides: four toes on the fore feet, five on the hind: length, from nose to tail, about ten inches; tail nine.

PLACE.

Inhabits *Brasil*. Reckoned more delicious eating than the others.

364. NINE-
BANDED.Armadillo. *Worm. Mus.* 335.Tatu porcinus, Schildverkel. *Klein. quad.* 48.Pig-headed Armadillo. *Grew's rarities*, 18. *Raii syn. quad.* 233.Tatu five Armadillo Americanus. *Seb. Mus. tab.* xxix. *fig.* 1.Dasypus novem cinctus. D. cingulis novem, palmis tetradactylis, plantis pentadactylis. *Lin. syst.* 54. *Phil.**transf.* liv. 57. *tab.* vii.Cataphraetus scutis duobus, cingulis novem. *Briffon quad.* 27.

Le Cachichame, ou Tatou a neuf bandes.

De Buffon, x. 215. *tab.* xxxvii. *Supplem.* iii. 287. *tab.* lviii. *Schreber*, i. 37. *tab.* lxxiv. lxxvi. *fig.* 7. 10.American Armadillo. *Phil. transf.* liv. 57. *tab.* vii. *LEV. Mus.*

A. with long ears: crust on the shoulders and rump marked with hexangular figures; the crust on the head marked in the same manner: nine bands on the sides, distinguished by transverse cuneiform marks: breast and belly covered with long hairs: four toes on the fore feet, five on the hind: tail long and taper: length of the whole animal three feet: the tail a little longer than the body.

In the LEVERIAN MUSEUM is a specimen of the same form, number of bands, and proportions, with this ; but the crusts on the head, and other parts, are covered with large scales not angular.

Inhabits *South America*. One was brought a few years ago to *England*, from the *Mosquito* shore, and lived here some time : it was fed with raw beef and milk, but refused our grains and fruit*.

PLACE.

Tatu five Armadillo Africanus. Seb.
Mus. i. tab. xxx. fig. 3, 4.
Le Kabassou, ou Tatou a douze bandes.
De Buffon, x. 218. tab. xl.

Cataphractus scutis duobus, cingulis
duodecim. Briffon quad. 27. Schre-
ber, ii. 40. tab. lxxv. lxxvi. fig. 11.
12.

365. TWELVE-
BANDED.

A. with broad upright ears : the crust on the shoulders marked with oblong pieces ; that of the rump with hexangular : twelve bands on the sides : five toes, with very large claws, on the fore feet ; five lesser on the hind : tail shorter than the body : some hairs scattered over the body.

M. de Buffon † mentions another of twelve bands, with a tail covered with rhomboid figures, which he is doubtful whether to refer to this species. It is the largest I ever heard of, being from nose to tail two feet ten inches long ; the tail about one foot eight : by the figure (for I never saw the animal) it varies greatly from the other,

* This corroborates what *Marcgrave* says of one of these animals, *Cuniculos, aves mortuas aliaque devorant* ; which is very extraordinary in quadrupeds which want both cutting and canine teeth.

† P. 256. tab. xli.

Weefle-headed.

366. EIGHTEEN-
BANDED.

Weefle-headed Armadillo. *Grew's rarities*, 19.

Tatu Mustelinus. *Raii syn. quad.* 235.

Dasyus uncinatus. D. tegmine tripartito, pedibus pentadactylis. *Lin. syst.*

53.

Cataphractus scuto unico, cingulis octodecim. *Briffon quad.* 23.

Le Cirquinçon, ou Tatou a dixhuit bandes. *De Buffon*, x. 220. *tab. xlii.* *Schreber*, ii. 42.

A. with a very slender head : small erect ears : the crust on the shoulders and rump consisting of square pieces : eighteen bands on the sides : five toes on each foot : length, from nose to tail, about fifteen inches ; tail five and a half.

PLACE.

Inhabits *South America*.

DIV. II. SECT. V.
DIGITATED QUADRUPEDS:

Without Teeth.

DIV. II. SECT. V. Digitated Quadrupeds.

XXXIX. MANIS.

Back, sides, and upper part of the tail, covered with large strong scales.

Small mouth: long tongue: no teeth.

367. LONG-TAIL-
ED.

Lacertus peregrinus squamosus. *Clus. exot.* 374. *Raii syn. quad.* 274.
Scaly Lizard. *Grew's rarities*, 46.
Manis tetradactyla *M. pedibus tetradactylis.* *Lin. syst.* 53. *Schreber*, ii. 23. tab. lxx.

Pholidotus pedibus anticis et posticis tetradactylis, squamis mucronatis, cauda longissima. *Briffon quad.* 19.
Le Phatagin. *De Duffon*, x. 180. tab. xxxiv. *Asp. Mus.* *LEV. Mus.*

M. with a slender nose; that and the head smooth: body, legs, and tail, guarded by large sharp-pointed striated scales: the throat and belly covered with hair: short legs: four claws on each foot, one of which is very small: tail a little taper, but ends blunt.

PLACE.

Inhabits *Guinea*? These animals approach so nearly the genus of Lizards, as to be the links in the chain of beings which connect the proper quadrupeds with the reptile class.

They grow to a great length: that which was preserved in the *Museum* of the *Royal Society*, was a yard and a half long*: from the tip of the nose to the tail, was only fourteen inches; the tail itself, a yard and half a quarter.

* *Grew.*

- Lacertus squamosus. *Bontius Java*, 60. *Pet. Gaz. tab. xx. fig. 11.* Pholidotus pedibus anticis et posticis 368. SHORT-TAIL-
pentadactylis, squamis subrotundis. ED.
Briffon quad. 18.
Armadillus squamatus major, *Ceilanicus*, seu *Diabolus Tajovanicus* dictus. *Seb. Mus. i. tab. liii. liv. Klein quad. 47. Schreber, ii. 22. tab. lxix.* Manis pentadactyla. *Lin. syst. 52.*
Le Pangolin. *De Buffon, x. 180. tab. xxxiv. Ash. Mus. LEV. MUS.*

M. with back, sides, and legs, covered with blunt scales, with bristles between each: five toes on each foot: tail not longer than the body: ears not unlike the human: chin, belly, and inside of the legs, hairy.

Inhabits the islands of *India*, and that of *Formosa*. The *Indians* call it *Pangoelling*; and the *Chinese*, *Chin Chion Seick* *. Feeds on lizards and insects: turns up the ground with its nose: walks with its claws bent under its feet: grows very fat: is esteemed very delicate eating: makes no noise, only a snorting.

PLACE.

Perhaps is a native of *Guinea*: the *Quogelo* of the *Negroes*; which *Des Marchais* † says grows to the length of eight feet, of which the tail is four: lives in woods and marshy places: feeds on ants, which it takes by laying its long tongue cross their paths, that member being covered with a sticky saliva, so the insects that attempt to pass over it cannot extricate themselves: walks very slowly: would be the prey of every ravenous beast, had it not the power of rolling itself up, and opposing to its adversary a formidable row of erected scales.

* *Dalhman in Act. Stockh. 1749, 265.*

† *Voyage du des Marchais, i. 200. Barbot, 114.*

In vain does the leopard attack it with its vast claws, for at last it is obliged to leave it in safety *. The *Negroes* kill these animals for the sake of the flesh, which they reckon excellent.

* Is said to destroy the *Elephant*, by twisting itself round the trunk, and compressing that tender organ with its hard scales.

Body

Body covered with hair.
Small mouth : long cylindric tongue.
No teeth.

XL.
ANT-EATER.

Tamandua-guacu. *Marcgrave Brasil*,
225.

Tamandua - guacu five major. *Piso*
Brasil, 320.

Pismire-eater, *Nieuboff*, 19.

Tamandua major cauda panniculata.
Barrere France Æquin. 162.

Mange-fourmis. *Des Marchais*, iii. 307.

Great Ant-Bear. *Raii syn. quad.* 241.

Myrmecophaga rostro longissimo, pe-

dibus anticis tetradactylis, posticis
pentadactylis, cauda longissimis pilis
vestita. *Briffon quad.* 15.

Myrmecophaga jubata. *M. palmis*
tetradactylis, plantis pentadactylis.

Lin. syst. 52. *Klein quad.* 45. *tab.* v.

Le Tamanoir. *De Buffon*, x. 141. *tab.*

xxix. *Suppl.* iii. 278. *tab.* lv. *Schreber*,

ii. 14. *tab.* lxvii. *Br. Mus.*

369. GREAT.

A. E. with a long slender nose : small black eyes : short round
ears : slender tongue, two feet and a half long, which lies
double in the mouth : legs slender : four toes on the fore feet,
five on the hind : the two middle claws on the fore feet very
large, strong, and hooked : the hair on the upper part of the
body is half a foot long, black mixed with grey : from the neck,
cross the shoulders, to the sides, is a black line bounded above
with white : the fore legs are whitish, marked above the feet
with a black spot : the tail is cloathed with very coarse black
hairs a foot long : length, from nose to tail, about three feet ten
inches ; the tail two and a half : weight about a hundred pounds.

Inhabits *Brasil* and *Guiana* : runs slowly : swims over the great
rivers ; at which time it flings its tail over its back : lives on
ants ; as soon as it discovers their nests, overturns them, or digs

PLACE AND
MANNERS.

3 T 2

them

them up with its feet; then thrusts its long tongue into their retreats, and penetrating all the passages of the nest, withdraws it into its mouth loaded with prey: is fearful of rain, and protects itself against wet by covering its body with its long tail. This (as well as every species of this genus) brings but one young at a time, at which season it is dangerous to approach the place: it does not arrive at its full growth under four years. The flesh has a strong disagreeable taste, but is eaten by the *Indians*. Notwithstanding this animal wants teeth, it is fierce and dangerous; nothing that gets within its fore feet can disengage itself. The very Panthers of *America* * are often unequal in the combat; for if the Ant-eater once has opportunity of embracing them, it fixes its talons in their sides, and both fall together, and both perish; for such is the obstinacy and stupidity of this animal, that it will not extricate itself even from a dead adversary †: sleeps in the day; preys by night.

370. MIDDLE.

Tamandua-i. *Marcgrave Brasil*, 225.*Raii syn. quad.* 242.Tamandua minor. *Piso Brasil*, 320.*Barrere France Æquin.* 162.Tamandua-guacu. *Nieuboff*, 19.

Myrmecophaga rostro longissimo, pedibus anticis tetradactylis, posticis

pentadactylis, caudā ferè nudā. *Brisson quad.* 16.Myrmecophaga tetradactyla. *Lin. syst.* 52. *Zooph. Gronov. No.* 2.Le Tamandua. *De Buffon*, x. 144. *Schreber*, ii. 16. tab. lxxviii.

A. E. with a long slender nose, bending a little down: small black mouth and eyes: small upright ears: bottoms of the fore feet round; four claws on each, like those of the former;

* *Gumilla Orenoque*, iii. 232.† *Piso Brasil*, 320.

five on the hind feet: hair shining and hard, of a pale yellow color: along the middle of the back, and on the hind legs, dusky: each side of the neck is a black line, that crosses the shoulders and meets at the lower end of the back: the tail is covered with longer hair than the back, is taper, and bald at the end: length, from nose to tail, one foot seven inches; the tail ten inches.

Inhabits the same country with the last: its manners much the same: when it drinks, part spurts out of the nostrils: climbs trees, and lays hold of the branches with its tail.

PLATE-

Le Tamandua. *De Buffon*, Supplem. iii. 281. tab. Ivi.

371. STRIPED.

A. E. with a taper nose, the upper mandible extending very far beyond the lower: eyes exceedingly small: ears round and short: tail covered equally with long hairs: five toes on the fore feet.

Body and tail tawny; the first marked downwards with broad stripes of black; the last annulated: legs and nose striped in the same manner: belly of a dirty white.

Length from nose to tail thirteen inches *French*; of the tail seven and a half.

M. *de Buffon* speaks of one, which he supposes to be the same with this; but the difference in size and colors forbid us to subscribe to his opinion. The account was transmitted to him by M. *de la Borde*, physician at *Cayenne*. The hair, says he, is whitish, and about two inches long: it has very strong talons; eats only

in

in the day-time ; keeps in the great woods : the flesh is good : it is much more rare than the *great Ant-eater*.

Weights sixty pounds.

PLACE.

Both these inhabit *Guiana*.

372. LEST.

Tamandua minor flavescens ; Ouati-
rionaou. *Barrere France Equin.* 163.

Tamandua five Coati Americana alba.
Seb. Mus. i. tab. xxxvii.

Myrmecophaga rostrum brevi, pedibus
anticis didactylis, posticis tetradac-
tylis. Brisson quad. 17.

Myrmecophaga didactyla. M. palmis
didactylis, plantis tetradactylis, cauda
villosa. Lin. syst. 51. Zooph. Gronov.
No. 1.

Little Ant-eater. *Edw. 220.*

Le Fourmiller. *De Buffon, x. 144. tab.*
xxx. Schreber, ii. 17. tab. lxvi.

A. E. with a conic nose, bending a little down : ears small, and hid in the fur : two hooked claws on the fore feet, the exterior much the largest ; four on the hind feet : head, body, limbs, and upper part and sides of the tail, covered with long soft silky hair, or rather wool, of a yellowish brown color : from nose to tail seven inches and a half ; tail eight and a half, the last four inches of which, on the under side, naked : the tail is thick at the base, and tapers to a point.

Inhabits *Guiana* : climbs trees, in quest of a species of ants which build their nests among the branches : has the same prehensile power with its tail as the former.

PLACE.

There is a fourth species found at the *Cape of Good Hope*, and in *Ceylon* ; but being described from a meer foetus *, we shall avoid giving a transcript of Dr. *Pallas's* account of it, but wait for further information. We shall only say, that it has four toes

* *Pallas Miscel. Zool. 64.*

L.



LEST ANT EATER N° 372



THE END OF THE WORLD

on the fore feet, and pendulous ears, which distinguishes it from other kinds. *Kolben* * describes their manners particularly, and says they have long heads and tongues, and are toothless; and that they sometimes weigh 100 lb. †: that if they fasten their claws in the ground, the strongest man cannot pull them away: that they thrust out their clammy tongue into the ants nest, and draw it into their mouth covered with insects. That the *African* species agrees with the *American* in every external particular, is confirmed; but that the last is furnished with grinding teeth, like the *Armadillo*, in the lower end of the jaws, is a discovery proved from the remarks of Doctor *Camper*, a celebrated zoologist in *Holland*. Mr. *Strachan*, in his account of *Ceylon* ‡, gives the same account of the manners of what the natives call the *Talgoi*, or Ant-Bear. It is not therefore to be doubted, but that these animals are common to the old and new continents.

* *Hist. Cape*, 118; where they are called *Earth Hogs*.

† As quoted by Dr. *Pallas*; I suppose from the *Dutch* edition..

‡ *Phil. Trans. abridg.* v. 180.

on the face, and pendulous ears which distinguish it from other kinds. Kellers' description of its manners particularly, and that they have long heads and tongues, and are voracious; and that their voracity weighs 100 to 150 lbs. when they come in the ground, the strongest man cannot pull them away; that they creep on their chains, turning into the air, and draw it into their nostrils, covered with insects. That the species agrees with the species in every external particular, is confirmed, but that the tail is furnished with grinding teeth, like the scabbard, at the lower end of the jaw, is a discovery proved from the remarks of Doctor Gmelin, a celebrated zoologist in Holland. Mr. Swinhoe in his account of Ceylon, gives the same account of the manners of what the natives call the *Tajay*, or *Man-Bear*. It is not therefore to be doubted, but that these animals are common to the old and new continents.

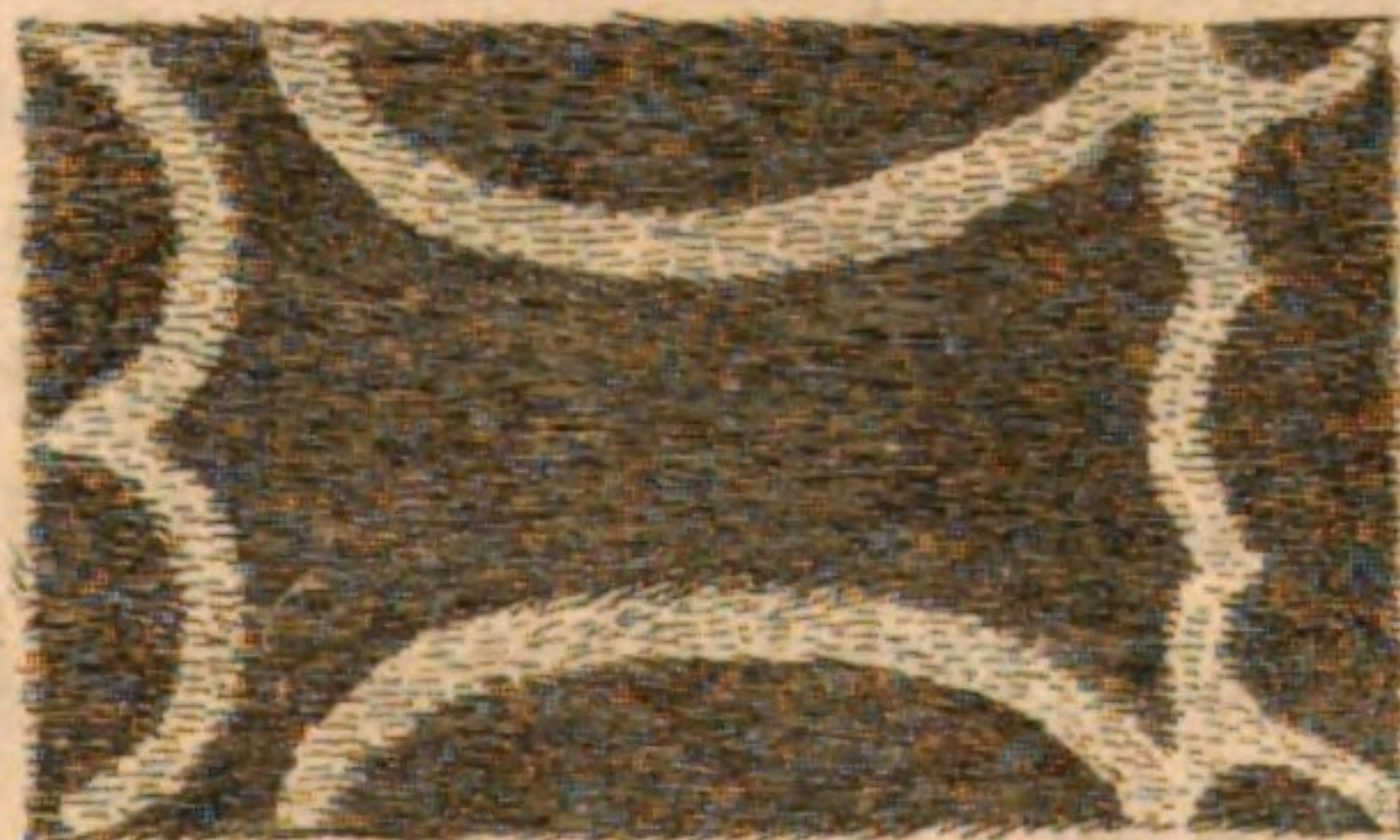
* The Cape, 115, where they are called *Man-Bear*.
† As quoted by Dr. Pallas; 1 before from the same edition.
‡ Pallas, *Reise*, 115.



D I V. III.

PINNATED QUADRUPEDS:

Having fin-like feet : fore legs buried deep in the skin : hind legs pointing quite backwards.



N° 380

3 U

D I V. III. Pinnated Quadrupeds.

XLI. WALRUS.

With two great tusks in the upper jaw, pointing downwards.
 Four grinders on both sides, above and below.
 No cutting teeth.
 Five palmated toes on each foot.

373. ARCTIC. Rosmarus. *Gesner Pisc.* 211. *Klein quad.* 92. Odobenus. *La vache marine.* *Briffon quad.* 30.
 Walrus, Mors, Rosmarus. *Worm. Mus.* 289. *Raii syn. quad.* 191. *Trichechus* Rosmarus. *T. dentibus*
Sea-horse, or Morse Marten's Spitz- laniariis superioribus exsertis. Lin.
berg, 107, 182. Egede Greenland, 82. syst. 49.
Sea-cow. Grantz Greenl. i. 125. Schre- Le Morse. De Buffon, xiii. 358. tab.
ber, ii. 88. liv. Br. Mus. Ast. Mus. Lev. Mus.

W with a round head : small mouth : very thick lips, covered
 • above and below with pellucid bristles as thick as a straw :
 small fiery eyes : two small orifices instead of ears : short neck :
 body thick in the middle, tapering towards the tail : skin thick,
 wrinkled, with short brownish hairs thinly dispersed : legs short ;
 five toes on each, all connected by webs, and small nails on each :
 the hind feet very broad : each leg loosely articulated ; the hind
 legs generally extended on a line with the body : tail very short :
 penis long.

SIZE.

Length, from nose to tail, sometimes eighteen feet, and ten or
 twelve

twelve round in the thickest part: the teeth have been sometimes found of the weight * of 20 lb. each.

Inhabit the coast of *Spitzbergen*, *Nova Zembla*, *Hudson's Bay*, and the Gulph of *St. Laurence*, and the *Icy Sea*, as far as *Cape Tschuktschi*, and the islands off it; but does not extend southward as far as the mouth of the *Anadyr*, nor are any seen in the islands between *Kamtschatka* and *America*. Are gregarious: in some places appear in herds of hundreds: are shy animals, and avoid places which are much haunted by mankind †: are very fierce; if wounded in the water, they attempt to sink the boat, either by rising under it, or by striking their great teeth into the sides; roar very loud, and will follow the boat till it gets out of sight. Numbers of them are often seen sleeping on an island of ice; if awakened, fling themselves with great impetuosity into the sea; at which time it is dangerous to approach the ice, lest they should tumble into the boat and upset it: do not go upon the land till the coast is clear of ice. At particular times, they land in amazing numbers: the moment the first gets on shore, so as to lie dry, it will not stir till another comes and forces it forward by beating it with its great teeth; this is served in the same manner by the next, and so in succession till the whole is landed, continuing tumbling over one another, and forcing the foremost, for the sake of quiet, to remove further up.

PLACE.

MANNERS.

* Teeth of this size are only found on the coast of the *Icy Sea*, where the animals are seldom molested, and have time to attain their full growth. *Hist. Kamtschatka*, 120.

† In 1608, the crew of an *English* vessel killed on *Cherry Isle* above 900 *Walrus*es in seven hours time; for they lay in heaps, like hogs huddled one upon another. *Marten's Spitzberg*. 181, 182.

CHACE.

The method of killing them on the *Magdalene* isles, in the gulph of *St. Laurence*, as I am informed, is thus:—The hunters watch their landing, and as soon as they find a sufficient number for what they call a *cut*, go on shore, each armed with a spear sharp on one side like a knife, with which they cut their throats: great care must be taken not to stand in the way of those which attempt to get again to sea, which they do with great agility by tumbling headlong; for they would crush any body to death by their vast weight. They are killed for the sake of their oil, one *Walrus* producing about half a tun. The knowlege of this chace is of great antiquity; *Oether*, the *Norwegian*, about the year 890, made a report of it to King *Alfred*, having, as he says, made the voyage beyond *Norway*, for the more commoditie of fishing of horse-whales, which have in their teeth bones of great price and excellencie, whereof he brought some at his returne unto the King *. In fact, it was, in the northern world, in early times, the substitute to ivory, being very white and very hard. Their skins, *Oether* says, were good to cut into cables. I do not know whether we make any use of the skin; but *M. de Buffon* says, he has seen braces for coaches made of it, which were both strong and elastic.

They bring one, or at most two, young † at a time: feed on sea-herbs and fish; also on shells, which they dig out of the sand with their teeth: are said also to make use of their teeth to ascend rocks or pieces of ice, fastening them to the cracks, and drawing their bodies up by that means. Besides mankind, they seem to have no other enemy than the white Bear, with whom they have

* *Hakluyt's coll. Voy. i. 5.*† *Barentz voy. 4.*

terrible

terrible combats ; but generally come off victorious, by means of their great teeth.

Le Dugon. *De Buffon*, xiii. 374. *tab. lvi. Schreber*, ii. 93.

374. INDIAN.

W with two short canine teeth, or tusks, placed in the upper jaw pretty close to each other : in the upper jaw four grinders on each side, placed at a distance from the tusks ; in the lower, three on each side.

Inhabits the *Cape of Good Hope* and the *Philippine* isles. The head described above being supposed to belong to an animal resembling a *Walrus*, found in the seas of *Africa* and *India*, as appears from some citations from travellers, too unsatisfactory to merit repetition. It is said by one, that it goes upon land to feed on the green moss ; and that it is called in the *Philippines*, the *Dugung* *.

PLACE.

* *De Buffon*, xiii. 377. *the note*.

Cutting

XLII, SEAL.

Cutting teeth, and two canine teeth in each jaw.

Five palmated toes on each foot.

Body thick at the shoulders, tapering towards the tail.

375. COMMON.

*Φωνη. Arist. hist. An. lib. vi. c. 12. Op-
pian Halieut. v. 376.*

Vitulus Oceani. Rondeletii, 453. 458.

*Le Veau Marin, ou Loup de Mer. Be-
lon Poissons, 25.*

*Phoca. Gesner Pisc. 830. Worm. Mus.
289. Klein quad. 93. Brisson quad. 162.*

*Seal, Seoile, or Sea Calf; Phoca five
Vitulus Marinus. Raii syn. quad. 189.*

Phil. trans. abridg. vol. xlvii. 120.

tab. vi. fig. 3.

Kassigiak. Crantz hist. Greenl. i. 123.

*Phoca vitulina. Ph. capite lævi inauri-
culato. Lin. syst. 56.*

Sial. Faun. suec. N° 4.

*Le Phoque. De Buffon, xiii. 333. tab.
xlv. Schreber, cxxxiv.*

*Seal. Br. Zool. i. 71. Br. Zool. illustr.
xlvi. LEV. Mus.*

S. with large black eyes : large whiskers : oblong nostrils : flat head and nose : tongue forked at the end : two canine teeth in each jaw : six cutting teeth in the upper jaw ; four in the lower : no external ears : body covered with thick short hair : short tail : toes furnished with strong sharp claws : usual length from five to six feet : color very various, dusky, brinded, or spotted with white or yellow.

PLACE.

Inhabit most quarters of the globe, but in greatest multitudes towards the North and the South ; swarm near the *Arctic* circle, and the lower parts of *South America* *, in both oceans ; near the

* *Dampier* says, that they are seen by thousands on the isle of *Juan Fernandez* ; that the young bleat like lambs ; that none are found in the *South Sea*, north of the equator, till lat. 21 ; that he never saw any in the *West Indies*, except in the *Bay of Campeachy* ; nor yet in the *East Indies*. i. 88, 89.

southern end of *Terra del Fuego*; and even among the floating ice as low as *south lat.* 60. 21 *. Found in the *Caspian* † Sea, in the lake *Aral*, and lakes ‡ *Baikal* and *Oron*, which are fresh waters. They are lesser than those which frequent salt waters; but so fat that they seem almost shapeless. In lake *Baikal* some are covered with silvery hairs; others are yellowish, and have a large dark-colored mark on the hind part of the back, covering almost a third of the body.

Seals bring two young at a time, which for some short space are white and woolly; bring forth in *autumn*, and suckle their young in caverns, or in rocks, till they are six or seven weeks old, when they take to sea: cannot continue long under water; are therefore very frequently obliged to rise to take breath, and often float on the waves. In summer, sleep on rocks, or on sand-banks: if surprized, precipitate into the sea; or if at any distance, scramble along, and fling up the sand and gravel with great force with their hind feet, making a piteous moaning: if overtaken, will make a vigorous defence with their feet and teeth: a slight blow on the nose kills them, otherwise will bear numbers of wounds.

Swim with vast strength and swiftness; frolick greatly in their element, and will sport without fear about ships || and boats;

* *Cook's voy.* i. 34.

† *Bell's travels*, i. 49.

‡ The same, 280.

|| On a ship's approaching the isle of *Lobos*, near the river *Plata*, it is met by shoals of seals, who will hang by their fore feet to the sides of the vessel, staring at the crew; then drop off, and pass and repass the vessel for a considerable time. *Muratori Hist. Paraguay*, 229.

which

which may have given rise to the fable of *Sea-nymphs* and *Sirens*. Their docility is very great, and their nature gentle: there is an instance of one which was so far tamed as to answer to the call of its keeper, crawl out of its tub at command, stretch at full length, and return into the water when directed; and extend its neck to kiss its master as often and as long as required*.

They never go any great distance from land: feed on all sorts of fish: are themselves good food, and often eaten by voyagers: killed for the sake of the oil made from their fat; a young seal will yield eight gallons: their skins very useful in making waist-coats, covers for trunks, and other conveniences: those of the lake *Baikal* are sold to the *Chinese*, who dye them, and sell them to the *Mongals* † to face their fur-coats: are the wealth of the *Greenlanders*, supplying them with every necessary of life.

376. MEDITER-
RANEAN.

Vitulus Maris Mediterranei. Rondel.

Phoca Monachus, capite inauriculato,

dentibus incis: utriusque maxillæ quatuor, palmis indivisis plantis exungiculatis. *Herman.*

S. with a small head: neck longer than that of the common seal: orifices of the ears not larger than a pea: hair short and rude: color dusky, spotted with ash-color: above the navel, of the specimen described by Mr. *Herman*, was a tawny spot: the toes on the fore feet furnished with nails: the hind feet pin-niform, and without nails.

When the animal is placed on its back, the skin of the neck folds like a monk's hood.

* Dr. *Parsons* in *Ph. transf.* xlvii. 113.

† *Muller's Ruff. Samlung.* iii. 559.

Length

Length of the specimen described by Mr. *Herman* was eight feet seven inches: the greatest circumference above five feet.

SIZE.

Inhabits the *Mediterranean Sea*, and as yet not discovered in the ocean. The common, or oceanic species, is probably an inhabitant of the same sea, for the species described by *Aristotle** is of that kind; he minutely describes the feet, and attributes to the hind, as well as the fore feet, five toes, every one furnished with nails: that species therefore is the *Phoca* of the antients, not the kind just under consideration.

PLACE.

Long-necked Seal. *Grew's Museum*, 95.

377 LONG-NECKED.

S. with a slender body: length from the nose to the fore legs as great as from the fore legs to the tail: no claws on the fore feet, which resemble fins.

This was preserved in the *Museum* of the *Royal Society*.

Doctor *Parsons* has given a figure of it in the xlviiith vol. of *Ph. Tr.* tab. vi. but we are left uninformed of its place.

ALLIED to this is another SEAL in the same *Museum*, sent of late years from the *Falkland isles*: its length is four feet: hair short, cinereous tipped with dirty white.

378. FALKLAND ISLE.

Nose short, beset with strong black bristles: short, narrow, pointed auricles.

Upper cutting teeth fulcated transversely; the lower in an

* *Hist. an. lib. ii. c. 1.*

opposite direction : on each side of the canine teeth, a lesser, or secondary one : grinders conoid, with a small process on one side near the base.

No claws on the fore feet ; but beneath the skin evident marks of the bones of five toes : the skin extends far beyond their ends. On the toes of the hind legs are four long and strait claws ; but the skin stretches far beyond, which gives them a very pinniform look.

PLACE.

This species probably inhabits also the seas about *Juan Fernandez* ; for *Don Ulloa* * informs us of one kind, which is not above a yard long. The small Seals inhabit from the *Falkland Islands*, round *Cape Horn*, even as far as *New Zealand* ; and are seen further from shore than any other kind. They are very sportive, dipping up and down like porpoises, and go on in a progressive course like those fish. When they sleep, one fin generally appears above the water. They perhaps extend as far as the *Society Islands*, at least the natives have a name for the Seal, which they call *Humi*.

379. TORTOISE-HEADED.

Tortoise-headed Seal. *Ph. Transf.* xlvii. 120. tab. vi.

S. with a head like that of a tortoise : neck slenderer than head or body : feet like those of the common Seal.

We are indebted to Doctor *Parsons* for the account of this species, who says it is found on the shores of many parts of *Europe*.

* *Ulloa* says, the first species of Seal found near that isle, is not above a yard long. ii. 226.

S. with very short fine glossy bristly hair, of an uniform color, almost black; marked along the sides, and towards the head and tail, with a stripe of a pale yellow color, exactly resembling a rubbon laid on it by art; words cannot sufficiently convey the idea, the form is therefore engraven on plate , from a drawing communicated to me by Doctor *Pallas*, who received it from one of the remotest *Kuril* islands.

380. RUBBON.

Its size is unknown, for Doctor *Pallas* received only the middle part, which had been cut out of a very large skin, so that no description can be given of head, feet or tail: a. shews the part supposed to be next to the head; b. that to the tail.

Other obscure species in those seas, which are mentioned in *Steller's* MSS. are, I. A middle-sized Seal, elegantly speckled in all parts: II. One with brown spots, scarcer than the rest: III. A black species with a peculiar conformation of the hind legs.

OBSCURE SPECIES.

Phoca Leporina. *Lepechin. act. acad. Petrop. pars i. 264. tab. viii. ix.*

381. LEPORINE.

S. with fur, soft as that of a hare, upright and interwoven; of a dirty white color: whiskers long and thick, so that the animal appears bearded: head long: upper lip thick: four cutting teeth above; the same below: nails on fore and hind feet.

Usual length six feet and a half; greatest circumference five feet two.

SIZE.

Inhabits the White sea during summer; ascends and descends the rivers in quest of prey; found also off *Iceland*, and from *Spitsbergen* to the *Tchutkinofs*.

PLACE.

3 X 2

Sea

382. GREAT.

Sea Calf. *Phil. Transf.* ix. 74. tab. v. Utsuk? *Crantz Greenl.* i. 125. *Schre-*
 Le grand Phoque. *De Buffon*, xiii. 345. *ber Cab.* i. 43. *LEV. Mus.*

S. resembling the common, but grow to the length of twelve * feet: that described in the *Phil. Transf.* was seven feet and a half long, yet so young as to have scarce any teeth; the common Seal is at full growth when it has attained the length of six.

PLACE.

Inhabits the coast of *Scotland*, and the south of *Greenland*. The skin is thick, and is used by the *Greenlanders* to cut thongs out of for their Seal fishery. Perhaps is the same with the great *Kamtschatkan* Seal, called by the *Russians*, *Lachtach*, weighing 800 lb. †, whose cubs are black.

383. ROUGH.

Neitsek. Crantz Greenl. i. 124. *Schreber*, clxxxvi.

S. with rough bristly hair, intermixed like that of a hog; of a pale brown color.

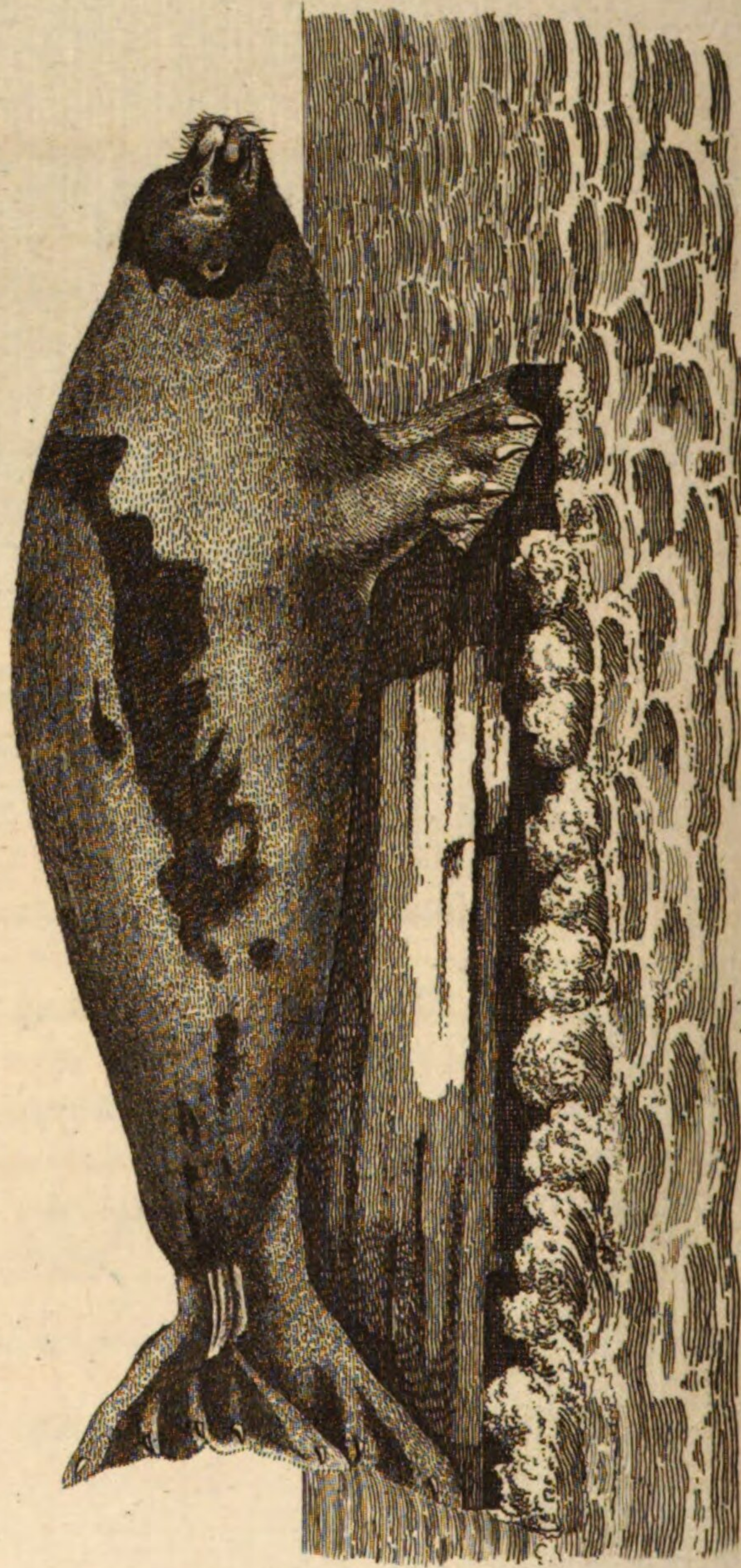
PLACE.

Inhabits *Greenland*: the natives make garments of its skin, turning the hairy side inmost. Perhaps what our *Newfoundland* Seal hunters call *Square Phipper*; whose coat, they say, is like that of a water-dog, and weighs sometimes 500 lb.

* A gentleman of my acquaintance shot one of that size in the north of *Scotland*.

† *Muller's Voy. Kamtschatka*, 60.

Clap-myfs.



HARP SEAL. N°384

Clap-myfs. *Egede Greenl.* 84.Neitferfoak. *Crantz Greenl.* i. 124.

384. HOODED.

S with a strong folded skin on the forehead, which it can fling over its eyes and nose, to defend them against stones and sand in stormy weather: its hair white, with a thick coat of thick black wool under, which makes it appear of a fine grey.

Inhabits only the south of *Greenland*, and *Newfoundland*: in the last is called the *Hooded Seal*: the hunters say they cannot kill it till they remove the integument on the head.

Black-sided Seal. *Egede Greenl.* plate iii.
Attarfoak. *Crantz Greenl.* i. 124. *Schre-
ber, Cab.* i. 39.

Phoca oceanica. Krylatca Ruff. *Lepechin
act. acad. Petrop. pars* i. 259. tab.
vi. vii.

385. HARP.

S with a pointed head and thick body, of a whitish grey color, marked on the sides with two black crescents, the horns pointing upwards towards each other; does not attain this mark till the fifth year; till that period, changes its color annually, and is distinguished by the *Greenlanders* by different names each year.

Inhabits *Greenland* and *Newfoundland*, *Iceland*, the *White Sea*, and *Frozen Ocean*, and passes through the *Asiatic* strait, as low as *Kamtschatka*: is the most valuable kind; the skin the thickest and best, and its produce of oil the greatest: grows to the length of nine feet. Our Fishers call this the *Harp*, or *Heart Seal*, and style the marks on the sides the saddle. There is a blackish variety, which they say is a young Harp, called *Bedlemer*.

PLACE.

Le petit

386. LITTLE.

Le petit Phoque. *De Buffon*, iii. 341. tab. liii. *Schreber*, cxxxv.
 LEV. MUS.

SIZE.

S with the four middle cutting teeth of the upper jaw bifurcated; the two middle of the lower jaw slightly trifurcated: a rudiment of an ear: the webs of the feet extending far beyond the toes and nails: hair soft, smooth, and longer than in the common Seal: color dusky on the head and back; beneath brownish: length two feet four inches.

Our Seal-hunters affirm, that they often observe, on the coast of *Newfoundland*, a small species, not exceeding two feet, or two feet and a half, in length. *M. de Buffon* says the specimen in the cabinet of the *French* king came from *India*; but from the authority of *Dampier*, and of modern voyagers to the *East Indies*, who have assured me they never saw any Seals * there, I suspect he was imposed on.

387. URSINE.

Ursus Marinus. *Steller. Nov. Com. Petrop.* ii. 331. tab. xv.
Sea-Cat. Hist. Kamtschatka, 123. *Muller's Exped.* 59.

Phoca Ursina. *Ph. capite auriculato*.
Lin. syst. 55.
L'Ours Marin. Brisson quad. 166. *Schreber*, cxxxii.

THERE are three marine animals, which keep a particular situation, and seem divided between the N. E. of *Asia*, and N. W. of *America*, in the narrow seas between those vast conti-

* A gentleman, the most curious, and greatest navigator of the *Indian* seas now living, informed me, that he not only never met with any Seals in those seas, but even none nearer than the isles of *Gallopagos*, a little north of the line, on the coast of *America*.

nents.

nents. These are what are called the *Sea Lion* and *Sea Bear*, and the *Manati*. They inhabit, from *June* to *September*, the isles that are scattered in the seas between *Kamtschatka* and *America*, in order to copulate, and bring forth their young in full security. They never land upon *Kamtschatka*. The accurate and indefatigable naturalist *Steller* was the first who gave an exact description of them; he and his companions, in the *Russian* expedition of 1742, were in all probability the first *Europeans* who gave them any disturbance in those their retreats. In *September*, these animals quit their stations, vastly emaciated; some return to the *Asiatic*, others to the *American* shores; but, like the *Sea Otters*, are confined in those seas between lat. 50 and 56.

PLACE.

They are not, as far as I can discover, found from those places, any where nearer than *New Zealand* *, where they are very common, and again about *Staten Land* †, the frozen island of *New Georgia* ‡, and the *Falkland* islands §. I suspect that they are also found in the island of *Juan Fernandez*; for, among the *Seals* so imperfectly described by *Don Ulloa* §, his second kind seems to be of this species. I may add, that *Alexander Selkirk* speaks of *Seals* which come on shore in that island in *November* to whelp †, which nearly corresponds with the time our late circumnavigators saw them in *New Year's islands*, where they found them and their young in *December*. Lastly, I may mention the isles of *Gallopagos*, where *Captain Woodes Rogers*, says he was attacked by a fierce *Seal*, as big as a bear, and with difficulty escaped with his life **.

* *Forster's obs.* 189.† *Cook's voy.* ii. 203.‡ *Cook's voy.* ii. 213.*Forster's voy.* ii. 529.§ *Pernetti, Engl. ed.* 187. tab. xvi.§ *Voy.* ii. 226.† In *Woodes Rogers' voy.* 136.

** The same, 265.

The

The *Ursine* Seal, a name we substitute for the sea-bear, leads, during the three months in summer, a most indolent life: it arrives at the islands vastly fat; but during that time they are scarce ever in motion: confine themselves for whole weeks to one spot, sleep a great part of the time, eat nothing, and, except the employment the females have in suckling their young, are totally inactive. They live in families; each male has from eight to fifty females, whom he guards with the jealousy of an eastern monarch; and though they lie by thousands on the shores, each family keeps itself separate from the rest, and sometimes, with the young and unmarried ones, amount to a hundred and twenty. The old animals, which are destitute of females, or deserted by them, live apart, and are excessively sullen, peevish, and quarrelsome: are excessively fierce, and so attached to their old haunts, that they would die sooner than quit them. They are monstrously fat, and have a most hircine smell. If another approaches their station, they are roused from their indolence, and instantly snap at it, and a battle ensues; in the conflict, they perhaps intrude on the seat of another: this gives new cause of offence, so in the end the discord becomes universal, and is spread thro' the whole shore.

The other males are also very irascible: the causes of their disputes are generally these:—The first and the most terrible is, when an attempt is made by another to seduce one of their mistresses, or a young female of the family. This insult produces a combat, and the conqueror is immediately followed by the whole seraglio, who are sure of deserting the unhappy vanquished. The second reason of a quarrel is, when one invades the seat of another. The third arises from their interfering in the disputes of others.

others. These battles are very violent ; the wounds they receive are very deep, and resemble the cuts of a sabre. At the end of a fight they fling themselves into the sea, to wash away the blood.

The males are very fond of their young ; but very tyrannical towards the females : if any body attempts to take their cub, the male stands on the defensive, while the female makes off with the young in her mouth ; should she drop it, the former instantly quits his enemy, falls on her, and beats her against the stones, till he leaves her for dead. As soon as she recovers, she comes in the most suppliant manner to the male, crawls to his feet, and washes them with her tears : he, in the mean time, stalks about in the most insulting manner ; but in case the young one is carried off, he melts into the deepest affliction, and shews all signs of deep concern. It is probable that he feels his misfortune the more sensibly, as the female generally brings but one at a time ; never more than two. Even the cubs of those on the island of *New Georgia* * are very fierce, barking at our sailors as they passed by, and biting at their legs. The breeding-time in this island is in the beginning of *January*.

They swim very swiftly, at the rate of seven miles an hour. If wounded, will seize on the boat, and carry it along with vast impetuosity, and oftentimes sink it. They can continue a long time under water. When they want to climb the rocks, they fasten with the fore paws, and so draw themselves up. They are very tenacious of life, and will live for a fortnight after receiving such wounds as would immediately destroy any other animal.

* *Forster's voy.* ii. 516. 529.

DESCRIPTION.

The male of this species is vastly superior in size to the female. The bodies of each are of a conic form, very thick before, and taper to the tail. The length of a large one is eight feet; the greatest circumference five feet; near the tail, twenty inches. The weight 800 lb. The nose projects like that of a pug dog, but the head rises suddenly: nostrils oval, and divided by a *septum*: the lips thick; their inside red and serrated: whiskers long and white.

The teeth lock into each other when the mouth is closed. In the upper jaw are four cutting teeth, each bifurcated; on both sides is a small sharp canine tooth bending inwards; near that another, larger: the grinders resemble canine teeth, and are six in number in each jaw: in the lower jaw are also four cutting teeth and two canine: but only four grinders in each jaw: in all, thirty-six teeth.

Tongue bifid: eyes large and prominent: iris black: pupil smaragdine: the eyes may be covered at pleasure with a fleshy membrane: the ears are small, sharp-pointed; hairy without, smooth and polished within.

The length of the fore-legs is twenty-four inches; like those of other quadrupeds, not immersed in the body like those of Seals: the feet are formed with toes, as those of other animals, but are covered with a naked skin, so that externally they seem a shapeless mass, and have only the rudiments of nails to five latent toes: the hind legs are twenty-two inches long, are fixed to the body quite behind, like those of Seals, but are capable of being brought forward, so that the animal makes use of them to scratch its head: these feet are divided into five toes, each divided

vided by a great web, and are a foot broad : the tail is only two inches long.

The hair is long and rough ; beneath which is a soft down, of a bay-color : on the neck of the old males the hair is erect, and a little longer than the rest. The general color of these animals is black, but the hairs of the old ones are tipped with grey. The females are cinereous. The skins of the young, cut out of the bellies of their dams, are very useful for cloathing, and cost about 3 s. 4 d. each ; the skin of an old one, 4 s.

The fat and flesh of the old males is very nauseous ; but the flesh of the females resembles lamb ; and the young ones roasted are as good as sucking-pigs.

Sea Lion. *Dampier's voy.* i. 90. iv. 15.

flato. *Lin. syst.* 55.

Rogers's voy. 136. *Anson's voy.* 122.

Le Lion Marin. *Briffon quad.* 167. *De*

Phoca Leonina. Ph. capite anticè cri-

Buffon, xiii. 351. *Schreber*, cxxxiii.

388. BOTTLE-
NOSE.

S (*the male*) with a projecting snout, hanging five or six inches below the lower jaw : the upper part consists of a loose wrinkled skin, which the animal, when angry, has the power of blowing up, so as to give the nose an hooked or arched appearance : the feet short and dusky ; five toes on each, furnished with nails : the hind feet have the appearance of great lacinated fins : large eyes : great whiskers : hair on the body short, and of a dun color ; that on the neck a little longer : the skin very thick. Length of an old male twenty feet ; greatest circumference, fifteen.

SIZE.

Female. Nose blunt, tuberos at the top : nostrils wide : mouth breaking very little into the jaws ; two small cutting teeth be-

Y 2

low,

SIZE.

low, two small and two larger above; two canine teeth, remote from the preceding; five grinders in each jaw; all the teeth conic: eyes oblique and small: auricles none: fore legs twenty inches long: toes furnished with flat oblong nails: hind parts, instead of legs, divided into two great bifurcated fins: no tail: the whole covered with short rust-colored hair. Length, from nose to the end of the fins, four yards: greatest circumference two yards and a half*.

PLACE.

Inhabits the seas about *New Zealand* †, the island of *Juan Fernandez* ‡ and the *Falkland islands* §, and that of *New Georgia* §, S. lat. 54—40. Are seen in great numbers, in *June* and *July*, the breeding-season, on the island of *Juan Fernandez*, which they resort to for the purpose of suckling their young on shore, and continue there till *September*. They bring two at a time. The female, during that season, is very fierce: one of Lord *Anson's* sailors was killed by the enraged dam of a whelp, which he had robbed her of. The male shews little attachment to its young, but the female is excessively fond of it: the former will suffer it to be killed before his face without shewing any resentment. Towards evening, both male and female swim a little way to sea, the last with the young on its back, which the male will push off, as if to teach it to swim.

They arrive on the breeding-islands very fat and full of blood: when they are in motion, they seem like a great skin full of oil, from the tremulous movement of the blubber, which has been found

* Described from a well-preserved specimen in the *Museum* of the *ROYAL SOCIETY*. This is the animal called by Dr. *Parsons*, a *Manati*.

† *Forster's obs.* 190.

‡ *Anson's voy.* 122.

§ *Pernetti* 202.

§ *Cook's voy.* ii. 213. *Forster's voy.* 527.

to be a foot thick. The *Spaniards* therefore call them *Lobos de Aceyte**, or wolves of oil; and the *French* bestow on this and the *Ursine* Seals, the common name of Sea Wolves. One has been known to yield a butt of oil; and so full of blood, that what has run out of a single animal † has filled two hogheads. The flesh is eatable; Lord *Anson's* people eat it under the denomination of beef, to distinguish it from that of Seal, which they called lamb.

The old animals have a tremendous appearance, yet are excessively timid, except at the breeding-season, when they seem to lose their apprehensions, and are less disturbed at the sight of man. At other times, they hurry into the water; or, if awakened out of their sleep by a loud noise, or by blows, fall into vast confusion, tumble down, and tremble in every part, thro' fear.

These animals associate in families, like the former, but not in such great numbers: the males shew equal jealousy about their mistresses, and have bloody combats on their accounts: oft-times there is one of superior courage to the rest, and procures by dint of valour a greater number of females than others. They are of a very lethargic nature, fond of wallowing in miry places, and will lie like swine on one another: they grunt like those animals, and will sometimes snort like horses in full vigor. They are very inactive on land: to prevent surprize, each herd places a centinel, who gives certain signals at appearance of danger: during the breeding-season, they abstain from food, and before that is elapsed become very lean; at other times they feed on fish and the smaller Seals.

* *Ulloa's voy.* ii. 227.

† *Anson's voy.* 123.

389. LEONINE.

*Bestia Marina, Kurillis, Kamtschadalis et
Ruffis, Kurillico nomine Siwutscha
dicta. Nov. Com. Petrop. ii. 360.*

Sea Lion. *Cook's voy. ii. 203. Forster's
voy. ii. 513. Perneti's voy. 240.
tab. xvi.*

S. with a short nose turning a little up : great head : eyes large : whiskers long and thick, and strong enough to serve for pick-teeth : on the neck and shoulders of the MALE is a great mane of coarse, long, waving hair, not unlike the shaggy appearance of a lion : the rest of the body covered with a very short, smooth, and glossy coat. The whole color is a deep brown : those of the *Kamtschatkan* islands are reddish ; the females tawny.

The fore feet are like those of the *Ursine Seal*, resembling a flat fin, formed of a black coriaceous substance, without the least external appearance of toes, as most erroneously represented by *Perneti* : the hind feet are very broad, furnished with very small nails, with a narrow stripe of membrane extending far beyond each : tail very short : hind parts vastly large, swelling out with the vast quantity of fat.

SIZE.

The old males are from ten to fourteen feet long, and of great circumference about the shoulders ; they weigh from twelve to fifteen hundred pounds : the females are from six to eight feet in length, of a more slender form than the males, and are quite smooth.

Penrose and *Perneti* ascribe a much greater size to those of the *Falkland* isles. The former says, that some of the males are twenty-six feet long * ; and the latter affirms that their length is

* *Exped. Falkland Isles, 28.*

twenty-five feet, and their girth round the shoulders from nineteen to twenty *.

They inhabit in vast numbers *Penguin* and *Seal* islands, near Cape *Desire*, on the coast of *Patagonia* †; are found within the straits of *Magellan*, and on *Falkland isles*: they have not yet been discovered in any other part of the southern hemisphere, or in any other place nearer than the sea between *Kamtschatka* and *America*.

PLACE.

They live in families separate from the *Ursine* and other *Seals*: these possess the beach nearest to the sea: they have much of the lethargic nature of the former; and, like them, are polygamous: they have from two to thirty females apiece: they have a fierce look; the old ones snort and roar like enraged bulls; but on the approach of mankind, fly with great precipitation: the females make a noise like calves: the young bleat like lambs.

MANNERS.

The old males lie apart, and possess some large stone, which no other dare approach; if they do, a dreadful combat ensues, and the marks of their rage appear in the deep gashes on various parts of their bodies. The males frequently go into the water, take a large circuit, land, and caress their females with great affection; put snout to snout as if they were kissing one another. The females, on seeing their male destroyed, will sometimes attempt to carry away a cub in their mouth, but oftener desert them through fear.

The food of these animals is the lesser *Seals*, *Penguins*, and fish; but while they are ashore they keep, in the breeding-time, a fast of three or four months; but to keep their stomachs distended, will swallow a number of large stones, each as big as two fists.

* *Voy. Malouines*, 240.

† *Narborough*, 31.

Pinniform

XLIII.
M A N A T I.

Pinniform fore-legs : hind parts ending in a tail, horizontally flat.

390. WHALE-
TAILED.

Manati. *Rufforum* Morſkuia Korowa.
Steller in Nov. Com. Petrop. ii. 294.

Schreber, ii. 95. *Hiſt. Kamſchatka*,
132.

THIS animal in nature ſo nearly approaches the cetaceous tribe, that it is merely in conformity to the ſyſtematic writers, that I continue it in this claſs : it ſcarce deſerves the name of a biped ; what are called feet are little more than pectoral fins ; they ſerve only for ſwimming ; they are never uſed to aſſiſt the animal in walking, or landing ; for it never goes aſhore, nor ever attempts to climb the rocks, like the *Walrus* and *Seal*. It brings forth in the water, and, like the whale, ſuckles its young in that element : like the whale, it has no voice ; and, like that animal, has an horizontal broad tail, without even the rudiments of hind feet.

PLACE.

Inhabits the ſeas about *Bering's* and the other *Aleutian* iſlands, which intervene between *Kamſchatka* and *America*, but never appears off *Kamſchatka*, unleſs blown aſhore by a tempeſt. Is probably the ſame ſpecies which is found above *Mindanao* * ; but is certainly† that which inhabits near *Diego Rodriguez*, vulgarly called *Diego Rais*, an iſland to the eaſt of *Mauritius*, or the iſle of

* *Dampier's voy.* i. 321.

† In Mr. *BANKS's* collection of drawings is an accurate ſketch of one exactly correſponding with Mr. *Steller's* deſcription.

France,

France, near which it is likewise found * : and it is likely that this species extends to *New Holland*, where *Dampier* says he has seen it †.

They live perpetually in the water, and frequent the edges of the shores ; and in calm weather swim in great droves near the mouths of rivers ; in the time of flood they come so near the land that a person may stroke them with his hand : if hurt, they swim out to the sea : but presently return again. They live in families, one near another ; each consists of a male, a female, a half-grown young one, and a very small one. The females oblige the young to swim before them, while the other old ones surround, and, as it were, guard them on all sides. The affection between the male and female is very great ; for if she is attacked, he will defend her to the utmost, and if she is killed, will follow her corpse to the very shore, and swim for some days near the place it has been landed at.

MANNERS.

They copulate in the spring, in the same manner as the human kind, especially in calm weather, towards the evening. The female swims gently about ; the male pursues ; till, tired with wantoning, she flings herself on her back, and admits his embraces ‡. *Steller* thinks they go with young above a year ; it is certain that they bring but one young at a time, which they suckle by two teats placed between the breast.

They are vastly voracious and gluttonous, and feed not only on the *fuci* that grow in the sea, but such as are flung on the edges of the shore. When they are filled, they fall asleep on their backs. During their meals, they are so intent on their food,

* *Voy. de la Caille*, 229.† *Voy. i.* 33.‡ The *Leonine* and *Ursine* Seals copulate in the same manner, only, after sporting in the sea for some time, they come on shore for that purpose.

that any one may go among them and chuse which he likes best.

Their back and their sides are generally above water; and as their skin is filled with a species of louse peculiar to them, numbers of gulls are continually perching on their backs and picking out the insects.

They continue in the *Kamtschatkan* and *American* seas the whole year; but in winter are very lean, so that you may count their ribs. They are taken by harpoons fastened to a strong cord, and after they are struck it requires the united force of thirty men to draw them on shore. Sometimes, when they are transfixed, they will lay hold of the rocks with their paws, and stick so fast as to leave the skin behind before they can be forced off. When a *Manati* is struck, its companions swim to its assistance; some will attempt to overturn the boat, by getting under it; others will press down the rope, in order to break it; and others will strike at the harpoon with their tails, with a view of getting it out, which they often succeed in. They have not any voice, but make a noise by hard breathing, like the snorting of a horse.

DESCRIPTION.

They are of an enormous size; some are 28 feet long, and 8000 lb. in weight; but if the *Mindanao* species is the same with this, it decreases greatly in size as it advances southward, for the largest which *Dampier* saw there, weighed only six hundred pounds*. The head, in proportion to the bulk of the animal, is small, oblong, and almost square: the nostrils are filled with short bristles: the gape, or *riētus*, is small: the lips are double:

* *Dampier*, i. 321. Voyagers are requested to observe, whether there are not the two species about this and the other islands of the *Indian* ocean.

near

near the junction of the two jaws the mouth is full of white tubular bristles, which serve the same use as the laminæ in whales, to prevent the food running out with the water: the lips are also full of bristles, which serve instead of teeth to cut the strong roots of the sea-plants, which floating ashore are a sign of the vicinity of these animals. In the mouth are no teeth, only two flat white bones, one in each jaw; one above, another below, with undulated surfaces, which serve instead of grinders.

The eyes are extremely small, not larger than those of a sheep: the iris black: it is destitute of ears, having only two orifices, so minute that a quill will scarcely enter them: the tongue is pointed, and small: the neck is thick, and its junction with the head scarce distinguishable; and the last always hangs down. The circumference of the body near the shoulders is twelve feet; about the belly twenty; near the tail only four feet eight: the head thirty-one inches: the neck near seven feet: and from these measurements may be collected the deformity of this animal. Near the shoulders are two feet, or rather fins, which are only two feet two inches long, and have neither fingers nor nails; beneath are concave, and covered with hard bristles: the tail is thick, strong, and horizontal, ending in a stiff black fin, and like the substance of whalebone, and much split in the fore part, and slightly forked; but both ends are of equal lengths, like that of a whale.

SIZE.

TAIL.

The skin is very thick, black, and full of inequalities, like the bark of oak, and so hard as scarcely to be cut with an ax, and has no hair on it: beneath the skin is a thick blubber, which tastes like oil of almonds. The flesh is coarser than beef, and will not soon putrify. The young ones taste like veal. The skin used for shoes, and for covering the sides of boats.

The *Russians* call this animal *Morskaia korowa*, or Sea-cow ; and *Kapustnik*, or Eater of herbs.

391. ROUND-
TAILED,

Manati. *Hernandez Mex.* 323. *De Laet.* 6.

Manatus. *Rondeletius*, 490. *Gesner Pisc.* 213. *Clus. exot.* 132. *Raii syn. quad.* 193. *Klein quad.* 94.

Le Lamentin. *Briffon quad.* 164. *De*

Buffon, xiii. 277. *tab.* 57.

Trichechus. Arted. gen. 79. *Syn.* 109.

Trichechus Manatus. Lin. syst. 49.

Schreber, ii. 95. *tab.* lxxx. *LEV. Mus.* from *Senegal*.

M. with thick lips : eyes as minute as a pea : two very small orifices in the place of ears : neck short, and thicker than the head ; the greatest thickness of the body is about the shoulders, from which it grows gradually smaller to the tail : the tail lies horizontally, is broad, and thickest in the middle, growing thinner to the edges, and quite round. *M. de Buffon* gives the tail of his the form of a *spatula*, but swelling out on each side, and rounded at the end, which is much narrower than the middle diameter.

The feet are placed at the shoulders : beneath the skins are bones for five complete toes, and externally are three or four nails * flat and rounded : near the base of each foot, in the female, is a small teat.

The skin is very thick and hard, having a few hairs scattered over it.

SIZE.

The length of the specimen in the *LEVERIAN MUSEUM*, is six feet and a half ; the greatest circumference, three feet eight inches ; that near the tail, two feet two. Those measured by *Dampier* in the *West Indies*, were ten or twelve feet long : their

* *Gomora* says four ; in the *LEVERIAN* specimen are only three.

tail:

tail twenty inches in length ; fourteen in breadth ; four or five thick in the middle ; two at the edges : the largest (according to the same voyager) weighed twelve hundred pounds. But they arrive at far greater magnitude : *Clusius* examined one which was sixteen feet and a half long ; and *Gomora* speaks of them as sometimes of the length of twenty feet.

The *Manati* which entirely inhabit fresh waters, according to *Dampier*, are much lesser than the others. *Gumilla* also informs us, that those of the higher parts of the *Orenoque* weigh only from five hundred to seven hundred and fifty pounds.

Inhabits the rivers of *Africa*, from that of *Senegal* to the *Cape of Good Hope* * ; abounds in certain parts of the eastern coasts and rivers of *South America*, about the Bay of *Honduras*, some of the greater *Antilles* †, the rivers of *Orenoque* ‡, and the lakes formed by it ; and lastly, in that of the *Amazons*, and the *Guallaga*, the *Pastaça*, and most of the others which fall into that vast river : they are found even a thousand leagues from its mouth, and seem to be stopt from making even an higher advance, only by the great cataract, the *Pongo* of *Borja* §. They sometimes live in the sea, and often near the mouth of some river, into which they come once or twice in twenty-four hours, for the sake of brouzing on the marine plants which grow within their reach : they altogether delight more in brackish or sweet water, than in the salt ; and in shallow water near low land, and in places secure from furies, and where the tides run gently §. It is said, that at times they frolick and leap to great heights out

PLACES.

* *Adanson*, 259. *Sparman* in *Ph. Transf.* lxvii. 40.† *Dampier*, i. 33.‡ *Gumilla*, ii. 43.§ *Condamine*, 77.§ *Dampier*, i. 34.

of

of the water *. Their uses were very considerable to the privateers or buccaneers in the time of *Dampier*. Their flesh and fat are white, very sweet and salubrious; and the tail of a young female was particularly esteemed. A suckling was held to be most delicious, and eaten roasted, as were great pieces cut out of the belly of the old animals.

The skin cut out of the belly (for that of the back was too thick) was in great request for the purpose of fastening to the sides of canoes, and forming a place for the insertion of the oars. The thicker part of the skin, cut fresh into lengths of two or three feet, serves for whips, and become, when dried, as tough as wood.

In the head, it was pretended that there were certain stones, or bones of great value, on account of their virtues in curing the gravel and colic †. *M. de Buffon* says, that in the *Manati* of *Senegal* were nine grinding teeth on each side of the jaws, above and below. That which I saw, had its scull taken out, which prevented my search into that particular.

They are taken by an harpoon stuck in the end of a staff, which the *Indians* use with great dexterity. They go in a small canoe with the utmost silence, as the animal is very quick of hearing. The harpoon is loose, but fastened to a cord of some fathoms in length; for as soon as the *Manati* is struck, it swims away with the barb infixed in its body, attended by the canoe, till spent with pain and fatigue: in some places the lesser are taken in nets. If a female, which has a young one, is struck, she takes it under its fins or feet, if not too large, and shews, even

* *Gumilla*, ii. 55.

† *Clusii Exot.* 233. *Monardus simp. Mea.* 326.

in extremity, the greatest affection for its offspring; which makes an equal return, never forsaking the captured parent, but is always a sure prey to the harpooner *.

The *Indians* of the *Maragnon*, or the river of *Amazons*, take them by the means of intoxicating herbs, or by shooting them with those poisoned arrows †, whose left touch is fatal, yet imparts no degree of venom to the thing stricken, whose flesh is eaten with the utmost safety ‡.

At the time the waters of the *Orenoque* (which annually overflow the banks) begin to return into the bed of the river, the *Indians* make dams across the mouths of the shallow lakes formed by the floods, and in that manner take vast numbers of *Manati*, or *Pexi-buey*, or *Fish-cows*, as the *Spaniards* call them, together with tortoises, and variety of fish ||.

I conclude this account with the extraordinary history of a tame *Manati*, preserved by a certain prince of *Hispaniola*, at the time of the arrival of the *Spaniards*, in a lake adjoining to his residence. It was, on account of its gentle nature, called in the language of the country *Matum*. It would appear as soon as it was called by any of its familiars; for it hated the *Spaniards*, on account of an injury it had received from one of these adventurers. The fable of *Arion* was here realised. It would offer itself to the *Indian* favorites, and carry over the lake ten at a time, singing and playing on its back; one youth it was particularly enamoured

* *Dampier*, i. 37. † *Ulloa*, i. 412. *Gumilla*, ii. 46. ‡ *Condamine's Trav.* 34. *Ph. Tr.* xlvii. 81.

|| *Gumilla*, ii. 43. The season for the taking these animals (says *Adanson*, p. 260) in the river *Senegal*, is only in the months of *December* and *January*.

with,

with, which reminds me of the classical parallel in the Dolphin of *Hippo*, so beautifully related by the younger *Pliny*. The fates of the two animals were very different; *Matum* escaped to its native waters, by means of a violent flood; the *Hipponensian* fish fell a sacrifice to the poverty of the retired Colonists *.

392. SEA APE.

MR. *Steller* saw on the coast of *America* † another very singular animal, which he calls a *Sea Ape*: it was five feet long: the head like a dog's: ears sharp and erect: eyes large: on both lips a sort of beard: the form of its body thick and round, thickest near the head, tapering to the tail, which was bifurcated, the upper lobe the longest: the body covered with thick hair, grey on the back, red on the belly. *Steller* could discover neither feet nor paws. It was full of frolick, and played a thousand monkey tricks; sometimes swimming on one side, sometimes on the other side of the ship, looking at it with great amazement. It would come so near the ship, that it might be touched with a pole; but if any body stirred, would immediately retire. It often raised one-third of its body above the water, and

* See both relations; the first in *Peter Martyr's Decades of the Indies*, Dec. iii. book 8; the other in lib. ix. epist. 33, of *Pliny*. The elder *Pliny* also relates the same story, lib. ix. c. 8.

† The *Beluga*, which I placed here in my former edition, from the misrepresentation of other writers, is an animal of the cetaceous tribe, called by the *Germans*, *Witfish*. See *Pallas Itin.* iii. 84. tab. iv. and *Crantz Greenland*, i. 114. N° 10.

stood

stood erect for a considerable time ; then suddenly darted under the ship, and appeared in the same attitude on the other side ; and would repeat this for thirty times together. It would frequently bring up a sea-plant, not unlike the bottle-gourd, which it would toss about, and catch again in its mouth, playing numberless fantastic tricks with it.

D I V. IV.

W I N G E D Q U A D R U P E D S.

D I V. IV. Winged Quadrupeds :

XLIV. BAT.

With long extended toes to the fore feet, connected by thin broad membranes, extending to the hind legs.

* Without Tails.

393. TERNATE.

Vespertilio ingens. Clus. exot. 94.

Canis volans ternatanus orientalis. Seb.

Mus. i. 91. tab. lvii.

Vespertilio Vampyrus. V. ecaudatus, naso simplici, membrana inter femora divisa. Lin. syst. 46.

La Rouffette and la Rougette. De Buf-

*fon, x. 55. tab. xiv. xvii *. Schreber, 185. tab. xlv.*

Pteropus rufus aut niger auriculis brevibus acutiusculis. Briffon quad. 153, and 154. No. 2.

Great Bat. Edw. 180. Br. Mus. Asb. Mus. LEV. Mus.

THE ROUSSETTE.

B. with large canine teeth : four cutting teeth above, the same below : sharp black nose : large naked ears : the tongue is pointed, terminated by sharp aculeated *papillæ* : exterior toe detached from the membrane : the claw strong, and hooked : five toes on the hind feet : talons very crooked, strong, and compressed sideways : no tail : the membrane divided behind quite to the rump : head of a dark ferruginous color : on the neck, shoulders, and under side, of a much lighter and brighter red : on the back the hair shorter, dusky, and smooth : the membranes of the wings dusky : varies in color ; some entirely of a reddish brown ; others dusky. This now described was one foot long : its extent from tip to tip of the wings four feet ; but they are found vastly larger.

SIZE.

* The history of these bats has been greatly elucidated by M. *De la Nux*, who resided fifty years in the *Isle de Bourbon*, where they are found. See M. *de Buffon*, Suppl. iii. 253.

This species is not gregarious, yet they are found in numbers on the same tree, by accidentally meeting there in search of food: they fly by day, and are seen arriving one by one to the spot which furnishes subsistence. If by any accident they are frightened, they will then quit the tree in numbers, and thus fortuitously form a flock. It is different with the other species,

The Rougette *, or BAT, with the same kind of teeth as the THE ROUGETTE. other, and the shape of head and body the same: the whole body and head cinereous, mixed with some black; but on the neck is a great bed of lively orange, or red.

The size is much less; the extent of wings being little more SIZE. than two feet.

They are both inhabitants of the same countries, agree in their food, but differ in some of their manners, which I shall distinguish in the following history of them.

These monsters inhabit *Guinea*, *Madagascar*, and all the islands from thence to the remotest in the *Indian* ocean. They are found again in *New Holland* †, the *Friendly islands*, the *New Hebrides*, and *New Caledonia* ‡. The *Rougettes* fly in flocks, and perfectly obscure the air with their numbers: they begin their flight from one neighboring island to another immediately on sun-set, and return in clouds from the time it is light till sun-rise ||, and lodge during day in hollow trees: both live on fruits; and are so fond of the juice of the *palm-tree*, that they will intoxicate themselves with it till they drop on the ground §. PLACE.

Notwithstanding the size of their teeth, they are not carnivorous. Mr. *Edwards* relates, that they will dip into the sea for

* LEV. MUS. † Cook's voy. iii. 626. ‡ Forster's obs. 187. || Dam-
 pier's voy. i. 381. § Museum Hafniæ, Pars. i. Sect. 2. No. 18. fish.

fish. I suspect that fact; but it is known that they skim the water with wonderful ease, perhaps in sportive moods. They also frequent that element to wash themselves from any vermin which might adhere to them *. They swarm like bees, hanging near one another from the trees in great clusters †; at least five hundred were observed hanging, some by their fore, others by their hind legs, in a large *Casuarina*-tree, in one of the *Friendly islands*. When shot at, they flew from the boughs very heavily, uttering a shrill piping note; others again, arrived at intervals from remote places to the tree ‡. In *New Caledonia*, the natives use their hair in ropes, and in the tassels of their clubs, interweaving it with the threads of the *Cyperus squarrosus*. The *Indians* eat them, and declare the flesh to be very good: they grow excessively fat at certain times of the year. The *French*, who live in the *Isle de Bourbon*, boil them in their *bouillon*, to give it a relish §. The *Negroes* have them in abhorrence ¶. Many of the *Roussettes* are of an enormous size: *Beckman* ** measured one, whose extent from tip to tip of the wing was five feet four inches; and *Dampier* †† another, which extended further than he could reach with stretched-out arms. Their bodies are from the size of a pullet to that of a dove: while eating, they make a great noise: their smell rank; their bite, resistance, and fierceness great when taken.

They bring but one young at a time.

The antients had some knowlege of these animals. *Herodotus* ‡

* *Forster's obs.* 188. † *Argensola Philip. isles*, 158. *Des Marchais*, ii. 261.
 ‡ *Forster's voy.* i. 450. § *Voy. de la Caille*, 233. § *Des Marchais*, *ibid.*
 ** *Voy. to Borneo*, 39. †† i. 381. ‡ *Ἡρόδοτος ὁλόκωτος, τῆσι μυκτηρισὶ προσεκεῖται. Lib.* iii.

mentions

mentions certain winged wild beasts, like bats, that molested the *Arabs*, who collected the *Cassia*, to such a degree that they were obliged to cover their bodies and faces, all but their eyes, with skins. It is very probable, as M. *de Buffon* remarks, it was from such relations the Poets formed their fictions of *Harpies*.

Linnaeus gives this species the title of *Vampyre*, conjecturing it to be the kind which draws blood from people in their sleep. M. *de Buffon* denies it, ascribing that faculty to a species only found in *S. America*: but there is reason to imagine, that this thirst after blood is not confined to the bats of one continent, nor to one species; for *Bontius* and *Nieuboff* inform us, that they of *Java* * seldom fail attacking those who lie with their feet uncovered, whenever they can get access; and *Gumilla* †, after mentioning a greater and lesser species, found on the banks of the *Orenoque*, declares them to be equally greedy after human blood. Persons thus attacked, have been known to be near passing from a sound sleep into eternity. The Bat is so dexterous a bleeder as to insinuate its aculeated tongue into a vein without being perceived, and then suck the blood till it is satiated; all the while fanning with its wings, and agitating the air, in that hot climate, in so pleasing a manner, as to fling the sufferer into a still sounder sleep ‡. It is therefore very unsafe to rest either in the open air, or to leave open any entrance to these dangerous animals: but they do not confine themselves to human blood; for M. *Con-*

* *Bontius India*, 70. *Nieuboff*, 255. These writers say that this kind is as big as a pigeon. I suspect that the species just described is common to *India* and *S. America*; Mr. *Greenwood*, painter, long resident at *Surinam*, informing me that there is in that colony a fox-colored bat, whose extent of wings is above four feet.

† *Hist. Orenoque*, iii. 100.

‡ *Ulloa's voy.* i. 61.

damine * says, that in certain parts of *America* they have destroyed all the great cattle introduced there by the missionaries.

β. LESSER. B. with head like a grehound : large teeth like the former : ears long, broad, and naked : whole body covered with soft short hair of a straw-color : shaped like the other in all respects : length, eight inches three quarters ; extent, two feet two inches. Place unknown to the gentleman who favored me with it. LEV. Mus.

394. SPECTRE.

Andira-guacu, vespertiliocornutus. Piso

Brasil, 190. Marcgrave Brasil, 213.

Canis volans maxima aurita fœm. ex

Nov. Hispania. Seb. Mus. i. tab. lvii.

Vespertilio spectrum. V. ecaudatus, naso infundibuliformi Lanceolato.

Lin. syst. 46. Klein quad. 62.

Pteropus auriculis longis, patulis, naso membrana antrorsum inflexa aucto.

Briffon quad. 154.

Le Vampire. De Buffon, x. 55. Schreber. 192. tab. xlv.

B. with a long nose : large teeth : long, broad, and upright ears : at the end of the nose a long conic erect membrane, bending at the end, and flexible : hair on the body cinereous, and pretty long : wings full of ramified fibres : the membrane extends from hind leg to hind leg : no tail ; but from the rump extend three tendons, terminating at the edge of the membrane. By *Seba's* figure, the extent of the wings is two feet two inches ; from the end of the nose to the rump seven inches and an half.

SIZE.

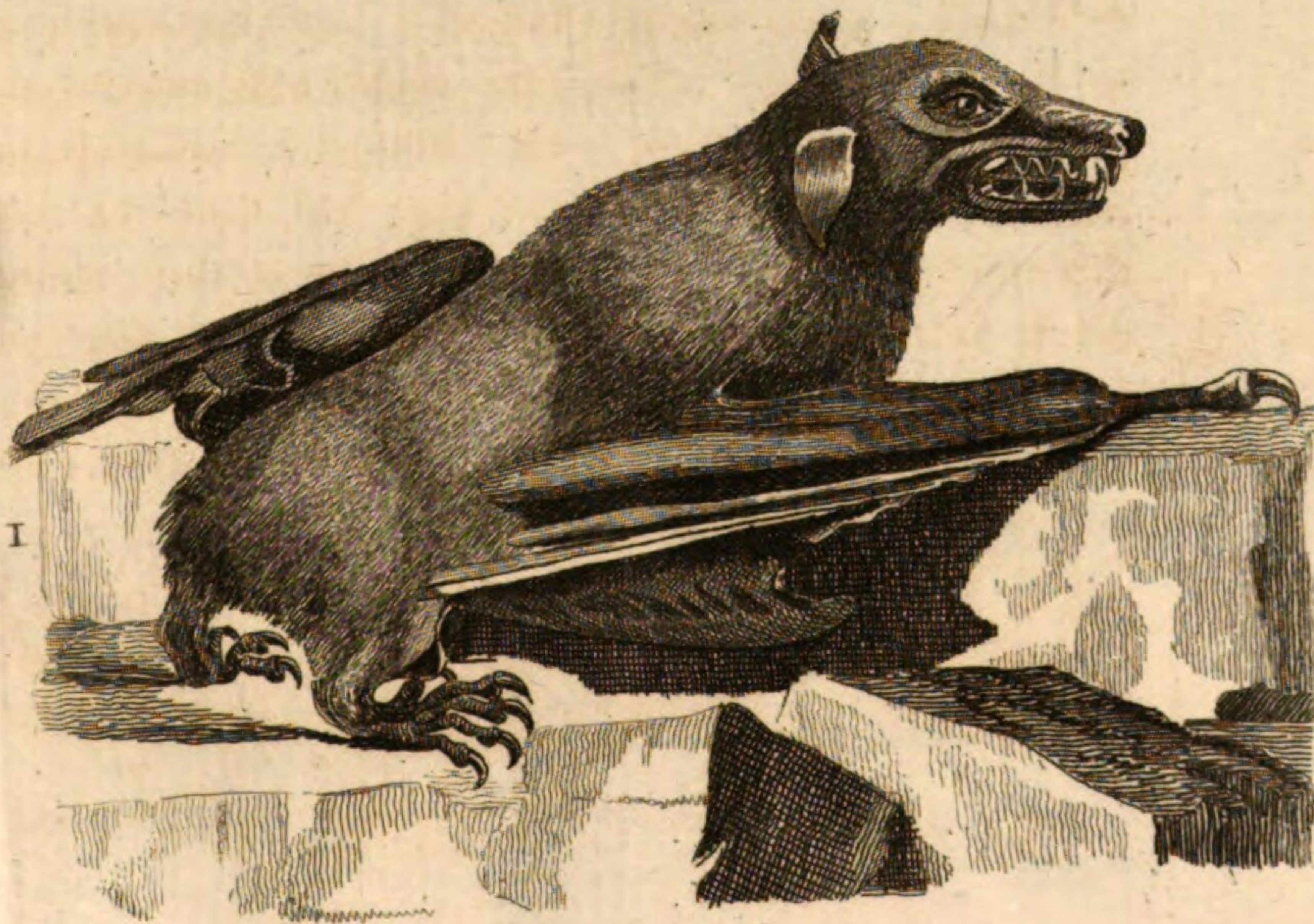
PLACE.

Inhabits *South America* : lives in the palm-trees : grows very fat : called *Vampyre* by *M. de Buffon*, who supposes it to be the species that sucks human blood : but neither *Piso*, or any other writers who mention the fact, give the least description of the kind.

* *Voy. S. America, 85.*

LII

II



I

Vespertilio Americanus vulgaris. *Seb. Mus. i. tab. lv. fig. 2.*

Vespertilio perspicillatus. *V. ecaudatus, naso foliato acuminato.* *Lin. syst. 47.*

V. murini coloris pedibus anticis tetra-

dactylis, posticis pentadactylis. *Brisson quad. 161.*

La chauve souris fer de Lance. *De Buffon, xiii. 226. tab. xxxiii. Schreber, 194. tab. xlv. B.*

395. JAVELIN.

B. with large pointed ears : an erect membrane at the end of the nose, in form of the head of an antient javelin, having on each side two upright processes : no tail : fur cinereous : size of a common bat.

SIZE.

Inhabits the warm parts of *America*.

PLACE.

The bat described by Mr. *Schreber*, p. 193. tab. xlv. A. under the title of *La Chauve souris pelle*, has so much resemblance, that I place it here as a variety of the former : the nasal membrane being nearly of the same form ; the color differs, the fur being ferruginous.

Vespertilio, rostro appendice auriculæ forma donata. *Sloane Jam. ii. 330.*

Small bat. *Edw. 201. fig. 1.*

La Feuille. *De Buffon, xiii. 227.*

Vespertilio soricinus. *Pallas Miscel. 48. tab. v. * Schreber, 195. tab. xlvii.*

LEV. Mus.

396. LEAF.

B. with small rounded ears : membrane on the nose of the form of an ovated leaf : no tail : a web between the hind legs : fur of a mouse-color, tinged with red : size of the last.

SIZE.

* This seems to be one of the blood-sucking species, the tongue being furnished with aculeated *papillæ*, and is twice the length of the nose ; so is well adapted for that purpose.

PLACE.

Inhabits *Jamaica*, *Surinam*, and *Senegal*: in the first lives in caves in woods, which are found full of its dung, productive of salt-petre: feeds on the prickly pear.

397. CORDATED.

Glis volans Ternatanus. Seb. Mus. i. Vespertilio spafina. V. ecaudatus naso
tab. lvi. fig. 1. Schreber, 191. tab. foliato obcordato. Lin. syst. 47.
xlvi.

B. with very broad and long ears: at the end of the nose a heart-shaped membrane: no tail: a web between the hind legs: color of the face a very light red; that of the body still paler.

PLACE.

Inhabits *Ceylon*, and the isle of *Ternate*, one of the *Moluccas*.

* * With tails.

398. PERUVIAN.

Chauve-souris de la Vallée d'Ylo. Feuillée obs. Peru, 1714. p. 623. Schreber, 196.
tab. lx.

SIZE.

B. with a head like a pug-dog: large strait-pointed ears: two canine teeth, and two small cutting teeth between each, in each jaw: tail enclosed in the membrane which joins to each hind leg, and is also supported by two long cartilaginous ligaments involved in the membrane: color of the fur iron-grey: body equal to that of a middle-sized rat: extent of wings two feet five inches.

β. With

β. With a large head and hanging lips, like the chops of a mastiff: nose bilobated: upper lip divided: strait, long, and narrow ears, sharp-pointed: teeth like the former: tail short; a few joints of it stand out of the membrane, which extends far beyond it; is angular, and ends in a point: claws on the hind feet large, hooked, and compressed sideways: membranes of the wings dusky, very thin: fur on the head and back brown; on the belly, cinereous. Length, from the nose to the end of the membrane, above five inches; extent of wings, twenty.

Inhabits *Peru* and the *Mosquito* shore: the last was given me by *John Ellis*, Esq; F. R. S. It differed from the former in size, being less; in all other respects agreed.

Linnaeus, carried away by love of system, places this, on account of its having only two cutting teeth in each jaw, among the *Glires*, next to the squirrels, under the name of *Noctilio Americanus*. But such is the variety in the numbers and disposition of the teeth in the animals of this genus, that he might form almost as many genera out of it as there are species. But as the Bats have other such striking characters, it is unnecessary to have recourse to the more latent marks to form its definition. The same may be said of several other animals.

Autre Chauve-souris. *De Buffon*, x. 84, 87. tab. xix. fig. 1, 2. *Schreber*, 207. 399. BULL-DOG.
tab. xlix. LEV. MUS.

B. with broad round ears, the edges touching each other in front: nose thick: lips pendulous: upper part of the body of a deep ash-color; the lower paler: tail long; the five last joints

SIZE. joints quite disengaged from the membrane. Length above two inches ; extent nine and a half.

PLACE. Inhabits the *West Indies*.

400. SENEGAL.

Chauvre-fouris etrangere. *De Buffon*, x. 82. tab. xvii. *Schreber*, 206. tab. lviii. LEV. MUS.

SIZE.

B. with a long head : nose a little pointed : ears short, and pointed : head and body a tawny brown mixed with ash-color : belly paler : two last joints of the tail extend beyond the membrane. Length, from nose to rump, above four inches ; extent 21.

PLACE.

Inhabits *Senegal*.

401. POUCH.

La Chauve-fouris a bourse. *Schreber*, 209. tab. lvii.

WITH the nose somewhat produced : the end thickest, and beset with fine whiskers : the chin divided by a sulcus : ears long, rounded at their ends : on each wing, near the second joint, is a small purse, or pouch : the tail is only partly involved in the membrane ; the end hanging out : color of the body a cinereous brown : the belly paler.

SIZE.

Length an inch and a half.

PLACE.

Inhabits *Surinam*.

Autre Chauvre-souris. *De Buffon*, x. 92. tab. xx. fig. 3. *Schreber*, 204. tab. lvi. 402. BEARDED.
LEV. MUS.

B. with the nostrils open for a great way up the nose : hair on the forehead and under the chin very long : ears long and narrow : upper part of the head and body of a reddish brown ; the lower of a dirty white tinged with yellow : tail included in a membrane very full of nerves. A small species.

B. with a head shaped like that of a mouse : top of the nose a little bifid : ears short, broad, and rounded : no cutting teeth ; two canine in each jaw : tail very long, inclosed in the membrane, which is of a conic shape : head, body, and the whole upper side of the membrane which incloses the tail, covered with long very soft hair of a bright tawny color, lightest on the head and beginning of the back ; the belly paler : at the base of each wing a white spot : wings thin, naked, and dusky : bones of the hind legs very slender. Length, from nose to tail, ten inches and a half ; tail one inch eight-tenths ; extent of wings ten and a half. 403. NEW YORK.

Inhabits *North America*. Communicated by Mr. *Ashton Blackburne* *. It is also founded in *New Zeland* †. Mr. *Schreber* describes it from me, in p. 212. LEV. MUS.

* The Rev. Mr. *Clayton* mentions another species of *North American Bat* ; large, with great ears, and long straggling hairs. *Phil. Trans. abridg.* iii. 594.

† *Forster's observ.* 189.

404. STRIPED. Autre Chauve-souris. *De Buffon*, x. 92. tab. xx. fig. 3. *Zooph. Gronov.* No. 25.
Schreber, 205. tab. xlix.

SIZE.

B. with a small short nose : ears short, broad, and pointing forward : body brown : wings striped with black, and sometimes with tawny and brown. Length, from nose to the end of the tail, two inches : varies in color ; the upper part of the body being sometimes of a clear reddish brown, the lower whitish.

PLACE.

Inhabits *Ceylon* ; called there, *Kiriwoula* *. I may add to this little species of Bat, the mention of a minute kind seen and heard in myriads of numbers in the isle of *Tanna*, one of the *New Hebrides*, but which escaped every attempt of our voyagers to obtain a near examination †.

405. MOLUCCA. *Vespertilio Cephalotes*. *Pallas Spicil. Zool. fasc. iii. 10. tab. i.* *Schreber*, 208.
tab. lxi. LEV. Mus.

B. with a large head : thick nose : small ears : tubular nostrils, terminating outwards in form of a screw : upper lip divided : tongue covered with papillæ and minute spines : claw, or thumb, joined to the wing by a membrane : first ray of the wing terminated by a claw : end of the tail reaches beyond the membrane : color of the head and back greyish ash-color ; that in the LEVERIAN MUSEUM of a finestraw-color : the belly dull

* *Pallas Miscel.* 49.

† *Forster's obs.* 188.

white. Length, from nose to rump, three inches three quarters ; extent of wings about fifteen.

SIZE.

Inhabits the *Molucca* isles. Described first by that very able naturalist Doctor *Pallas*.

PLACE.

La Chauve-souris fer a Cheval. *De Buffon*, viii. 131, 132. *tab.* xvii. xx. 406. HORSE-SHOE.
Schreber, 210. *tab.* lxii. *Br. Zool.* i. 129.

B. with a membrane at the end of the nose in form of a horse-shoe : ears large, broad at their base, and sharp-pointed, inclining backward : wants the little or internal ear : color of the upper part of the body deep cinereous ; of the lower, whitish. There is a greater and lesser variety ; the greater is above three inches and a half long from the nose to the tip of the tail : its extent above fourteen. This and all the following have the tail inclosed in the membrane.

SIZE.

Inhabits *Burgundy* ; and has lately been discovered in *Kent*, by Mr. *Latham*, of *Dartford* ; found also about the *Caspian* sea. The long-eared Bat, N° 412, has also been observed there, and at *Petersburg*. This and the four next were first discovered by M. *de Buffon*, whose names I retain.

PLACE.

La Noctule. *De Buffon*, viii. 128. *tab.* xviii. *Schreber*, 200. *tab.* lii.
 Great Bat. *Br. Zool. illustr. tab.* ciii. *Br. Zool.* i. 128.

407. NOCTULE.

B. with the nose slightly bilobated : ears small and rounded : on the chin a minute *verruca* : hair of a reddish ash-color. Length to the rump two inches eight-tenths ; tail one seven-tenth ; extent of wings thirteen inches.

SIZE.

Inhabits.

PLACE.

Inhabits *Great Britain* and *France*; very common in the open deserts of *Russia*, wherever they can find shelter in caverns: flies high in search of food, not skimming near the ground. A gentleman informed me of the following fact, relating to those animals, which he was witness to: — that he saw taken under the eaves of *Queen's College, Cambridge*, in one night, one hundred and eighty-five; the second night sixty-three; the third night two; and that each that was measured had fifteen inches extent of wings*.

408. SEROTINE.

La Serotine. *De Buffon*, viii. 129, tab. xviii. *Schreber*, 201. tab. liii.

SIZE.

B. with a longish nose: ears short, but broad at the base: hair on the upper part of the body brown, mixed with ferruginous; the belly of a paler color. Length, from nose to rump, two inches and a half.

PLACE.

Inhabits *France*; found in caverns of rocks upon the river *Argun*, beyond lake *Baikal*; but as yet not discovered in any other part of the vast *Russian* dominions.

* No notice was taken of the species; but, by the size, it could be neither of the common kinds. I never saw but one specimen of the *Noctule*, which was caught during winter in *Flintshire*.

La Pipistrelle. *De Buffon*, viii. 129. tab. xix. fig. 2. *Schreber*, 202. tab. liv.

409. PIPIST-
RELLE.

B. with a small nose : the upper lip swelling out a little on each side : the ears broad : the forehead covered with long hair : color of the upper part of the body a yellowish brown ; the lower part dusky ; the lips yellow. The least of Bats ; not an inch and a quarter long to the rump : extent of wings six and a half.

SIZE.

Inhabits *France* : common in the rocky and mountainous parts of *Russia* and *Siberia*.

PLACE.

La Barbastelle. *De Buffon*, viii. 130. tab. xix. fig. 1. *Schreber*, 203. tab. lv.

410. BARBAS-
TELLE.

B. with a sunk forehead : long and broad ears ; the lower part of the inner sides touching each other, and conceal the face and head when looked at in front : the nose short ; the end flattened : cheeks full : the upper part of the body of a dusky brown ; the lower, ash-colored and brown. Its length to the rump about two inches ; its extent ten and a half.

SIZE.

Inhabits *France*.

PLACE.

411. COMMON.

N^{ox}reg^{is}. *Arist. hist. an. lib. i. c. 5.*Vespertilio. *Plinii, lib. x. c. 61. Ges-*
ner quad. 766. Agricola Anim. Subter.
483.Bat, Flitter-mouse. *Raii syn. quad. 243.*Rear-mouse. *Charlton Ex. 80.*Vespertilio major. Speck-maus, Fle-
der-maus. *Klein quad. 61.*

Vespertilio murinus. V. caudatus naso

oreque simplici, auribus capite mi-
noribus. *Lin. syst. 47.*Laderlap, Fladermus. *Faun. suec. No. 2.*

La grande Chauve-fouris de notre pais.

Briffon quad. 158. De Buffon, viii.

113. tab. xvi.

Short-eared Bat. *Br. Zool. i. 130. Edw.*201. *Schreber, 199. tab. li. LEV.*

Mus.

SIZE.

B. with short ears : mouse-colored fur tinged with red. Length
two inches and a half ; extent of wings nine.

PLACE.

Inhabits *Europe* : common in *England*.412. LONG-EAR-
ED.Souris Chauve, Ratte-penade. *Belon oys.*
147.Vespertilio auritus. V. naso oreque
simplici, auriculis duplicatis, capite
majoribus. *Lin. syst. 47. Faun. suec.*
No. 3. Klein quad. 61.

La petite Chauve-fouris de notre pais.

*Briffon quad. 160.*L'Oreillard. *De Buffon, viii. 118. tab.*xvii. *Schreber, 197. tab. l.*Long-eared Bat. *Edw. 201. Br. Zool.*i. 129. *Br. Zool. illustr. tab. ciii.*

LEV. Mus.

SIZE.

B. with ears above an inch long, thin, and almost pellucid :
body and tail only one inch three quarters long. This
and all other Bats, except the *Ternate* and the *Horse-shoe*, have a
lesser or internal ear, serving as a valve to close the greater when
the animal is asleep.

PLACE.

Inhabits *Europe*, and is found in *Great Britain*. Bats appear
abroad in this country early in the spring ; sometimes are tempted
by a warm day to sally out in winter ; fly in the evenings ; live
on moths and other nocturnal insects ; skim along the water in
quest of gnats ; fly by jerks, not with the regular motion of
birds,

birds, for which the antients mistake them; frequent glades and shady places; will go into larders, and gnaw any meat they find: bring two young at a time, which they suckle at their breast: retire at the end of summer into caves, the eaves of houses, and into ruined buildings, in vast multitudes, where they generally remain torpid, suspended by the hind legs, enveloped in their wings: are the prey of owls: their voice weak. *Ovid* takes notice both of that and the origin of the *Latin* name:

Minimam pro corpore vocem

Emittunt; peragantque leves stridore querelas.

Teſtaque, non ſylvas celebrant: lucemque perofæ

Noſte volant: ſeroque trabunt a vespere nomen.

A D D I T I O N S.

MULES, p. 8.

A Proof of their being prolific was produced by Mr. *Tullo*, in the parish of *Newtyle*, in the shire of *Forfar*, about twenty years ago, when a she-mule, which he turned to a horse, brought a foal which much resembled the female parent. But as there is a superstition in *Scotland* about these productions, the foal was put to death, being considered as a monster.

ZEBRA, p. 14.

The *Zebra* which is now at *Walcot*, I find is the product of a painted Jack Ass and a female *Zebra*, foaled at Lord *Clive's*, at *Claremont*.—The legs alone are spotted like the foreign ones. — It is a very vicious animal. They are obliged to confine it in a paddoc. Some time since, they suffered him to run in the park, to the great annoyance of passengers. It is a very fine-made beast, and seems to be remarkably strong.

WILD DOGS,
p. 219.

One which was examined at the *Cape of Good Hope*, by Captain *Blanket*, had ears like those of a lurcher, but larger, and more on the top of the head. It could turn them on all sides with great facility: feet flatter than those of other dogs. It could not bark or howl, but only cried: was very fierce, and mastered the tame dogs it was with, though it was only a young one.

WILD RED CAT,
p. 273.

Wild Cat; reddish brown: white breast and belly: larger than the common cat: legs and tail thicker in proportion.

This

This animal is found in the north of *India*, as I am assured by *LYNX* p. 280.
 Doctor *Pallas*.

The measurements of the beautiful specimen of this rare and valuable animal in the *LEVERIAN Museum*, are as follow. It being a lesser specimen than that from which my description was taken.

SEA OTTER,
 p. 356.

	Feet.	Inches.
From the nose to the tip of the tail —	— 4	1 $\frac{1}{2}$
Tail — — — — —	— 0	10
Nose to the hind part of the head —	— 0	7
—— to the eye — — — — —	— 0	2
—— to the ear — — — — —	— 0	4
From leg to leg, along the belly —	— 2	0
Height to the top of the shoulders —	— 0	10
Circumference of the body —	— 2	3

Dillon's Travels through Spain, p. 76, in his account of the Royal Cabinet of Natural History at *Madrid*. "The Great Ant-bear from *Buenos Ayres*, the *Myrmecophaya jubata* of *Linnaeus*, called by the *Spaniards Osa Palmera*, was alive at *Madrid* in 1776, and is now stuffed and preserved in this cabinet. The people who brought it from *Buenos Ayres* say, it differs from what *they* call the Ant-eater, which only feeds on emmets, and other insects; whereas this would eat flesh, when cut in small pieces, to the amount of four or five pounds. From the snout to the extremity of the tail, this animal is two yards in length, and his height is about two feet: the head very narrow; the nose long and slender. The tongue is so singular, that it looks more like a worm, and extends above sixteen inches. His body is covered with
 long

GREAT
 ANT-EATER,
 p. 507.

long hair, of a dark brown, with white stripes on the shoulders; and when he sleeps, he covers his body with his tail."

The specimen of the Great Ant-eater in the LEVERIAN *Museum*, is superior in size to any we have before heard of.

			Feet.	Inches.
Its whole length is	—	—	7	4
Tail	—	—	2	9
From tip of the nose to the ears		—	1	0
Length of the hairs of the mane		—	1	0
————— of the tail	—	—	1	2
Height to the top of the shoulders		—	2	0

Both of the above are extremely rare, and in an uncommon fine state of preservation.

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REGIA
MONACENSIS.

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I N D E X*.

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* In this Index very few of the Species are enumerated, that having been amply done under the INDEX of GENERA; to which the Reader is referred, the Genera being here printed in capitals for that purpose, under which he will find all the Species belonging to each.

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* De Buffon, x. 1. tab. 11.

† De Buffon, xiii. 254. The same with the Hunting Leopard, No. 156.

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* *De Buffon*, xiv. 224. tab. xxix. A variety of our *Egret*, No. 101.

† *M. de Buffon's* generic name for the *Polecats* which exhale so pestilential a vapour.

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26,	24,	for Soten	read Loten.
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60,	note,	— Transylvania	— in Transylvania.
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